



US005343647A

**United States Patent** [19][11] **Patent Number:** **5,343,647****Bulka**[45] **Date of Patent:** **Sep. 6, 1994**[54] **PRESSURE SENSITIVE PRICING  
TAG/LABEL**[75] **Inventor:** **Tricia Bulka, Merrimack, N.H.**[73] **Assignee:** **Moore Business Forms, Inc., Grand  
Island, N.Y.**[21] **Appl. No.:** **753,994**[22] **Filed:** **Sep. 3, 1991**[51] **Int. Cl.<sup>3</sup>** ..... **G09F 3/10**[52] **U.S. Cl.** ..... **40/630; 40/638**[58] **Field of Search** ..... **40/630, 638; 283/79,  
283/81, 101**[56] **References Cited****U.S. PATENT DOCUMENTS**

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*Primary Examiner*—Kenneth J. Dorner*Assistant Examiner*—J. Bonifanti*Attorney, Agent, or Firm*—Nixon & Vanderhye[57] **ABSTRACT**

A versatile paperboard panel can be used to attach identifying (e.g. price) information to a wide variety of articles. A release coating is applied to a first face of the panel, and a label having an adhesive face is disposed over the panel with the adhesive in contact with the release coating. A perforation allows separation of the panel into first and second portions. The first portion contains the label, and the second portion includes an opening capable of receiving an attachment mechanism (such as a hook or string). A number of panels may be provided in a cut or continuous sheet that may be fed through a printer, the sheet having a first layer of paperboard which forms the panels, and a second layer of paper which forms the labels, with adhesive attached to the paper and a release coat to the panel. The labels are die cut from the second layer, and the panels are die cut from the first layer. Tractor holes may be provided along edges of the sheet to facilitate feeding through a printer, which prints the identifying indicia on the labels. The panels may be used by placing an attachment mechanism connected to the article into association with the panel second portion opening, or removing the label from the panel and applying it to the article, or separating the panel along the perforation and attaching the first portion of the panel (with the label still attached) to the article (e.g. by sliding it into a channel).

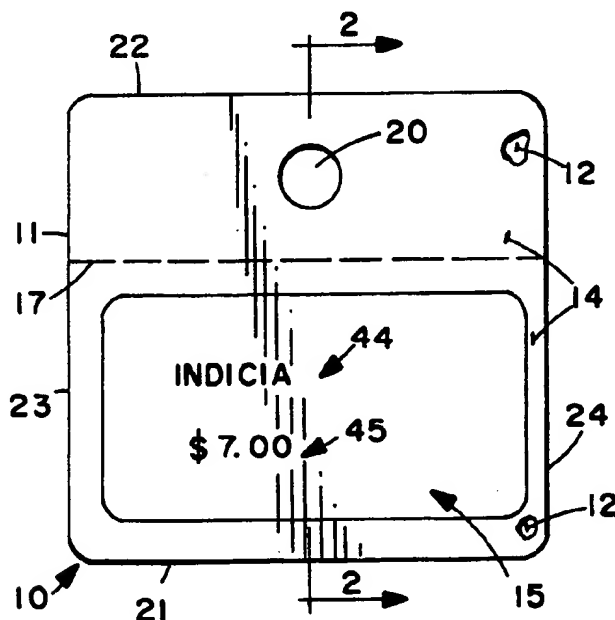
**15 Claims, 3 Drawing Sheets**

FIG. 1

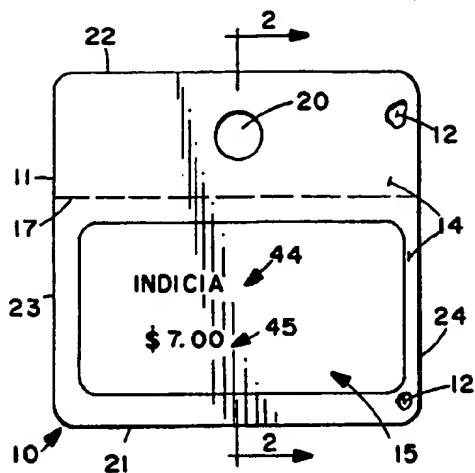


FIG. 3

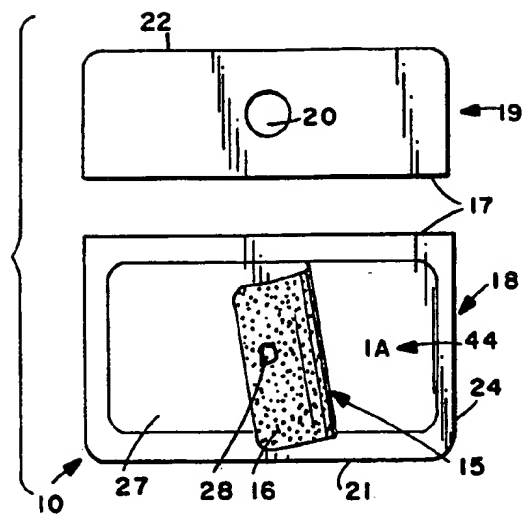


FIG. 2

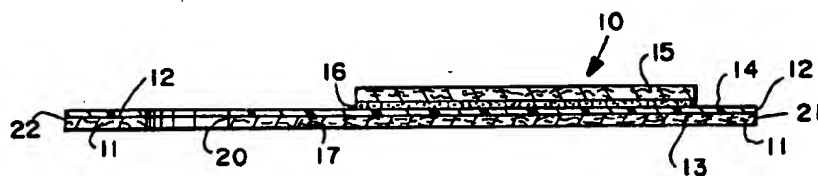
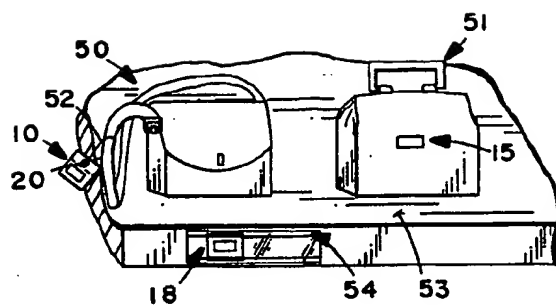
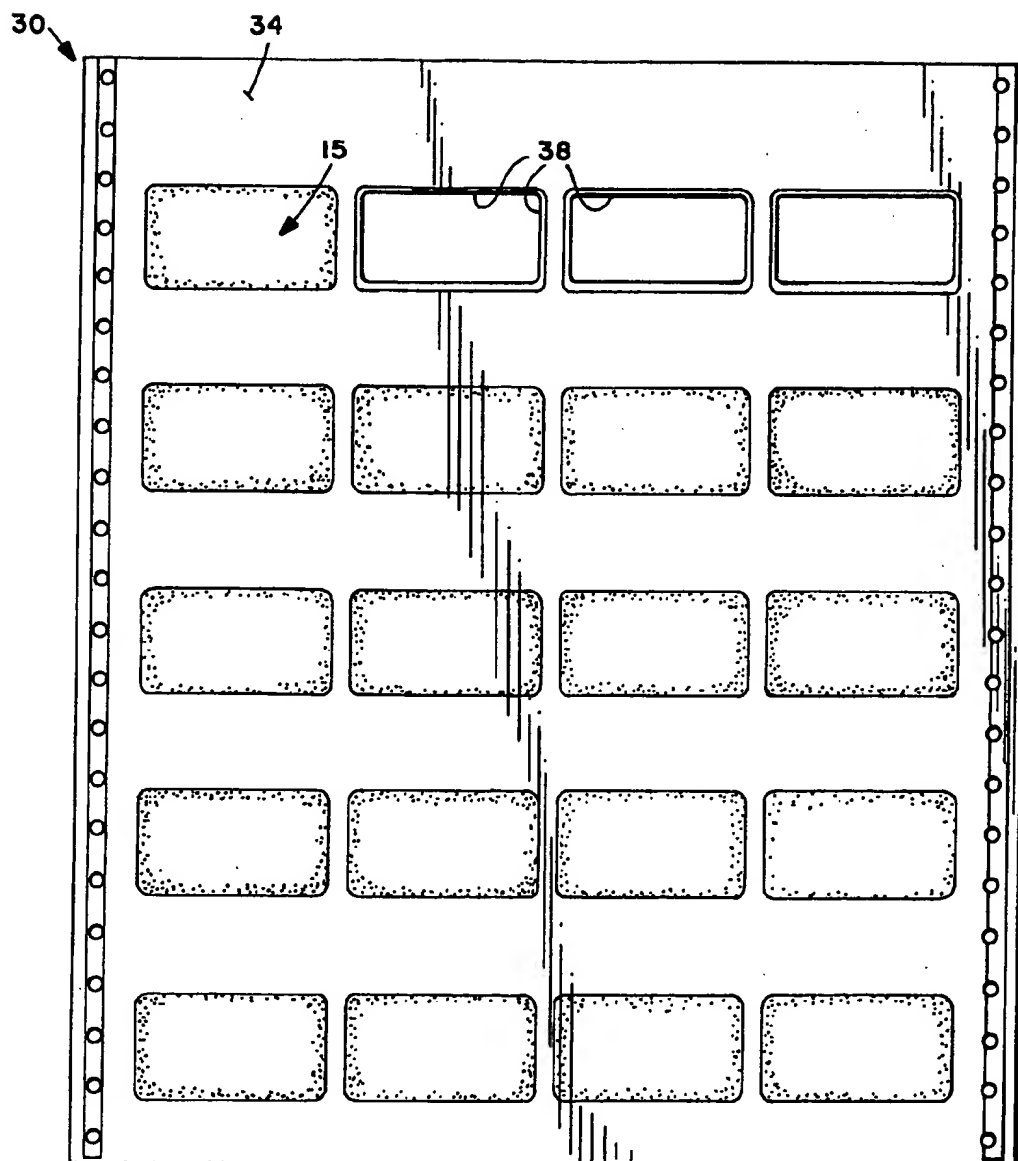
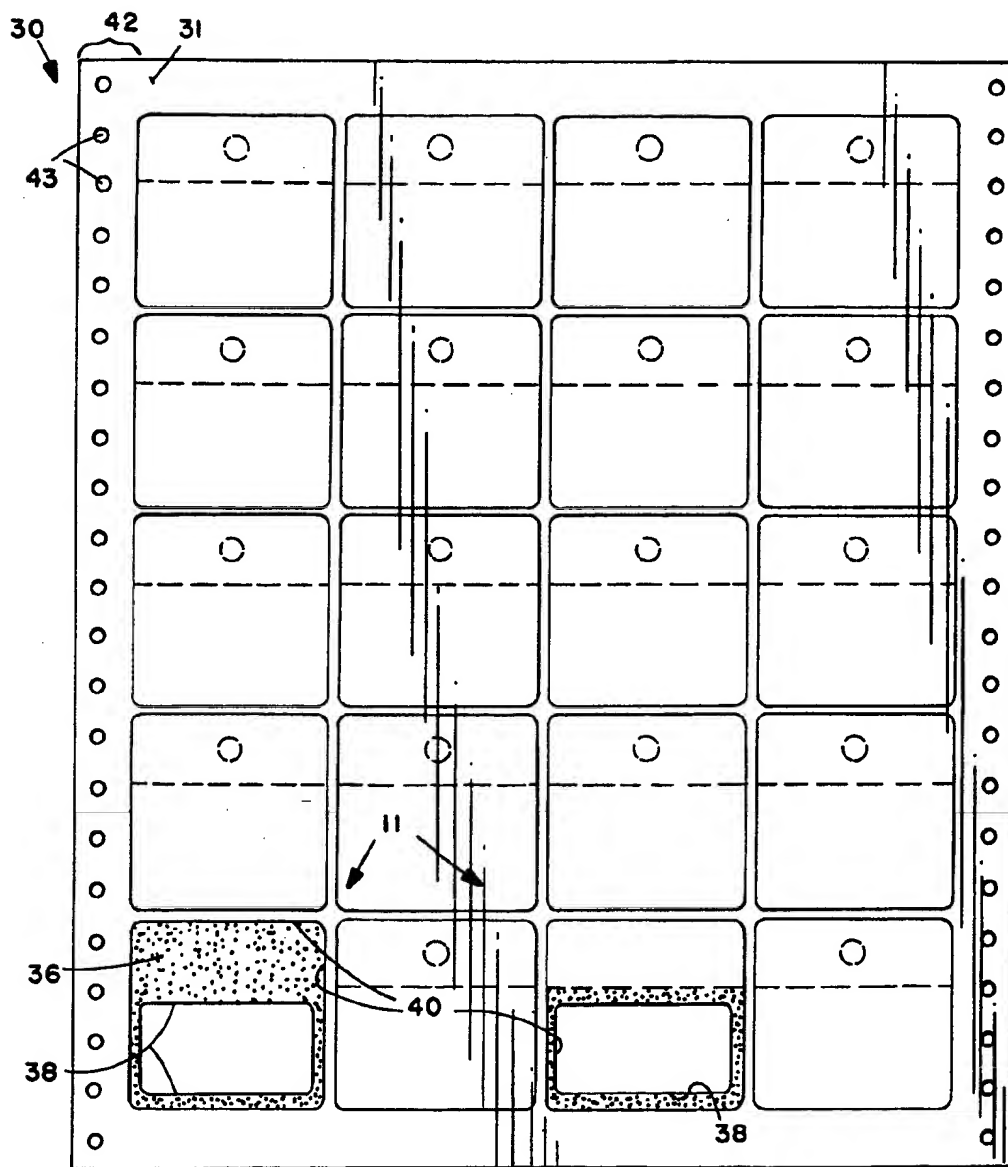
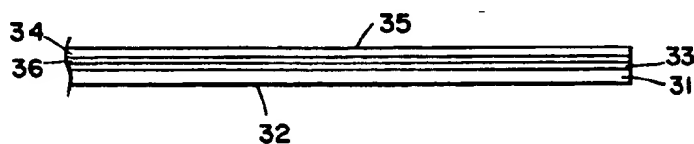


FIG. 7



**FIG. 4**

**FIG. 5**

**FIG. 6**

## PRESSURE SENSITIVE PRICING TAG/LABEL

## BACKGROUND AND SUMMARY OF THE INVENTION

There are many retailers, or others handling merchandise, that utilize a number of different price tags or labels to apply to merchandise depending upon the particular configuration of the merchandise, or the manner in which it is displayed. Keeping a separate inventory of these different types of price tags and labels can be burdensome. Also, many retailers or the like wish to imprint the price tags or labels in a neat, easily readable, and mass production form, desirably by running the price tags or labels through a printer (such as a laser printer, or impact printer). It can be difficult to match conventionally available pricing tags or labels that can be fed through a printer to the particular needs of the retailer.

The invention seeks to overcome the problems described above by providing an identifying device that is both highly versatile and capable of running through a printer in sheet format so that a plurality of identifying devices can be printed with variable information at the same time. Despite these advantages, the identifying devices according to the invention are extremely simple, and relatively inexpensive.

According to one aspect of the present invention, an identifying device is provided which comprises the following elements: A panel having first and second faces. A release coating applied to at least a first area of the panel first face. A label having an adhesive face, and disposed over the first area of the panel first face with the adhesive face in contact with the release coating, the label having dimensions significantly less than the dimensions of the panel. Means defining a line of weakness in the panel for allowing separation of the panel along the line of weakness, and dividing the panel into first and second portions, the label being disposed in the first portion. And, means defining an opening capable of receiving an attachment mechanism in the second portion of the panel. The opening in the panel second portion may be a circular perforation, the line of weakness may be a perforation, and the panel is preferably paperboard and the label is paper. The panel is typically quadrate, and the release coating is over the entire first face of the panel. The adhesive typically is removable or permanent adhesive, although if repositional adhesive is used then the "release coating" need only be a smooth face of the paperboard.

According to another aspect of the present invention, a machine feedable sheet of identifying devices is provided. The sheet comprises the following elements: A first layer of paperboard having first and second faces. A release coating on the first face of the first layer. A second layer comprising paper having first and second faces. Adhesive on the first face. The second layer overlying the first layer so that the first faces thereof are in contact with each other. Means defining a plurality of die cut quadrate openings, each having a first area, in the second layer, to define labels. Means defining a plurality of die cut quadrate openings, each having a second area, in the first layer, to define identifying panels. The second area being significantly greater than the first area. And, means facilitating feeding of the sheet into a machine for printing indicia on the labels. The individual panels preferably are constructed as de-

scribed above with respect to the first aspect of the invention.

The invention also contemplates a method of using an identifying paperboard panel. The method comprises the following steps: (a) Printing identifying indicia (such as price indicia) on the label. And, (b) attaching the panel to an article which is to be identified by practicing, at the discretion of the user, one of the following substeps: (i) placing an attachment mechanism connected to the article into association with the panel opening, or (ii) removing the label from the panel and applying it to the article so that the label adhesive adheres it to the article, or (iii) separating the panel along the line of weakness and attaching the first portion of the panel, with label still attached thereto, to the article. A plurality of panels are preferably provided in a common sheet, and step (a) is practiced by automatically feeding the sheet through a printer so that at least a plurality of the labels are printed with identifying information. There is then the further step (c), between steps (a) and (b), of separating individuals panels from the sheet.

It is the primary object of the present invention to provide a versatile and easily machine printable identifying device to be utilized as a pricing tag or label. This and other objects of the invention will become clear from an inspection of the detailed description of the invention, and from the appended claims.

## BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a top plan view of an exemplary identifying device according to the invention;

FIG. 2 is a cross-sectional view, taken along lines 2-2 of FIG. 1, of the device of FIG. 1;

FIG. 3 is a view like that of FIG. 1 only showing the portions of the panel detached, and the label being peeled back from the panel;

FIGS. 4 and 5 are top and bottom plan views, respectively, of a machine feedable sheet with a plurality of identifying devices according to the invention;

FIG. 6 is a side view of a portion of the sheet of FIGS. 4 and 5; and

FIG. 7 is a perspective view showing the three different modes of utilization of the device of FIG. 1.

## DETAILED DESCRIPTION OF THE DRAWINGS

An exemplary identifying device according to the present invention is shown generally by reference numeral 10 in FIGS. 1 through 3. The device 10 includes a panel 11 having first and second faces 12, 13, respectively. A release coating 14 is applied to at least a first area of the panel first face 12 (e.g. below the label 15), and preferably the release coating 14 is applied over the entire panel 11, as illustrated in the drawings. The release coating 14 can be any conventional release coating and it depends upon the particular type of adhesive 16 (see FIGS. 2 and 3) utilized with the label 15. If the adhesive is a conventional removable or permanent adhesive, the release coating 14 will be a conventional silicone-like coating. If the adhesive 16 is a low strength, or repositional adhesive, then the "release coating" need only be a smooth surface of the face 12.

The label 15 has significantly smaller dimensions than the panel 11, e.g. covering only about 40 to 50 percent of the panel. The label 15 is typically of a conventional paper having a weight and combination conventionally used for paper labels, however it can comprise other

materials, such as plastic. The panel 11 may also comprise a variety of materials, but preferably is paperboard. The term "paperboard" as used in the present specification and claims encompasses all primarily cellulosic based materials between heavyweight paper and lightweight cardboard, and preferably has a weight within the range conventional for price tags used in retail establishments,

A line of weakness—such as a perforation 17—separates the panel 11 into a first portion 18 and a second portion 19 (see FIG. 3). The first portion 18 includes the label 15 thereon, and has an area somewhat larger than the area of the label 15, so that the label may be easily peeled therefrom. Also a surrounding border for the label provided by the panel first portion 18 tends to highlight the indicia on the label (especially if the label 15 is of a different color—e.g. yellow—than the paperboard panel first face 12—e.g. white). The panel second portion 19 preferably has means defining an opening therein, such as the circular perforation 20 (shown with the circular cutout removed).

It is preferred that the panel 11 be substantially quadrate in configuration, as seen in FIG. 1, having first and second end edges 21, 22 that are parallel to each other and the perforation 17, and first and second side edges 23, 24 parallel to each other. The edges of the label 15 are also parallel to the edges 21 through 24 of the panel 11, the label too preferably being quadrate. The face 27 (see FIG. 3) of the label 15 is visible, while the opposite face 28 has the adhesive 16 thereon.

The aspect of the invention illustrated in FIGS. 4 through 6 is a machine feedable sheet 30 containing identifying devices 10. The sheet 30 comprises a first layer 31 of paperboard, having first and second faces, the second face being the bottom face 32 (see FIG. 6), and the first face being covered with a release coating 33, typically of a wax-like substance. The coating 33, over substantially the entire first layer 31, is the release coating 14 illustrated in FIG. 1.

The sheet 30 also comprises a second layer having first and second faces, with the second face 35 being the top face as illustrated in FIG. 6, and adhesive 36 (corresponding to the adhesive 16 in FIGS. 2 and 3) is disposed covering essentially the entire first face of the second layer 34. The adhesive 36 preferably is a removable adhesive, although it can be a repositional adhesive, or even a permanent adhesive.

The first and second layers 31, 34 are in engagement over the entire extent thereof with the adhesive 36 in contact with the release coating 33. While interruptions may be provided in the adhesive 36 or the release coating 33, none are necessary.

The sheet 30 further comprises means defining a plurality of die cut quadrate openings 38, each having a first area, in the second layer 34, to define labels 15. Also means are provided for defining a plurality of die cut quadrate openings 40 (see FIG. 5) in the first layer 31, to define identifying panels 11. The openings 40 each have a second area which is significantly greater than the first area, as can be readily seen in FIG. 5. A die cut opening 40 corresponds to each die cut opening 38, so that preferably each panel 11 has a label 15 associated therewith, and vice versa. It is noted that any number of die cut openings 38, 40 may be provided in the sheet 30, preferably in rows and columns, such as the four rows and five columns illustrated in FIGS. 4 and 5.

The sheet 30 also preferably comprises means facilitating feeding of the sheet 30 into a machine for printing

indicia on the labels, such as a conventional impact or laser printer. The exact form that the means facilitating feeding of the sheet 30 will take depends upon whether the sheet 30 is a cut sheet, part of a continuous form (that is having like sheets at the ends thereof), the particular type of printer to be utilized, etc. In the exemplary form illustrated in the drawings, the means facilitating feeding are the tractor holes 43, which preferably extend through both layers 31, 34, and are disposed along both side edges of the sheet 30. However the means for facilitating feeding may instead merely comprise non-die cut side edge portions of the sheet 30 if the printer with which the sheet 30 is to be utilized has a feeding mechanism capable of grasping and feeding the sheet without the necessity for tractor holes 43.

When the sheet 30 is fed through a printer, variable indicia is printed on the labels 15. Depending upon the printer either the same indicia can be printed on all of the labels 15 associated with the sheet 30, or the indicia may vary from label to label. FIGS. 1 and 3 illustrate indicia 44 that has been printed on a label 15. The identifying indicia 44 may include price information, such as illustrated at 45 in FIG. 1. The indicia 44 is printed on the top face 27 of the label 15 (see FIG. 3).

After the sheet 30 has been passed through a printer so that the indicia 44, 45 is printed thereon, the panels 11 are separated therefrom, to provide the individual devices 10 as illustrated in FIG. 1.

FIG. 7 illustrates three typical manners of use of the device 10 according to the invention, showing its utility and versatility. On the top lefthand side of FIG. 7, an article of merchandise, such as a handbag 50, has a device 10 employed as a tag associated therewith, while another article of merchandise 51 has a device according to the invention employed therewith as a label.

For the article 50, the device 10 is attached thereto by an attachment mechanism, such as a hook or a string or wire 52, which extends through the opening 20 and around a portion of the article 50 so that the indicia 44, 45 on the label are readily visible, the device 10 in this situation comprising a tag.

For marking the article 51, the label 15 has been removed from the panel 11 by grasping an edge thereof and peeling it backwardly (as illustrated in FIG. 3). Then the removable adhesive 16 of the label 15 is applied directly to the article 51, so that the indicia thereon is readily visible as illustrated in FIG. 7.

FIG. 7 also illustrates as an article a shelf 53, which has a conventional price card display channel 54 on the front edge thereof. The third way in which the device 10 according to the invention is utilized is to separate the first and second portions 18, 19 from each other by tearing along the perforation 17, and then taking the first portion 18—with label 15 adhered thereto—and sliding it into operative association with the channel 54, the first portion 18 then serving as a price card as illustrated in FIG. 7.

It will thus be seen that according to the present invention a simple yet highly versatile identifying device, utilizable as a tag, label, or card, is provided. The device may readily be incorporated in sheet form and fed through a printer to have variable data printed thereon. Despite its versatility and functionality, the invention is extremely simple. While the invention has been herein shown and described in what is presently conceived to be the most practical and preferred embodiment thereof, it will be apparent to those of ordinary skill in the art that many modifications may be

made thereof within the scope of the invention, which scope is to be accorded the broadest interpretation of the appended claims so as to encompass all equivalent structures and procedures.

What is claimed is:

1. An identifying device, comprising:  
a paperboard panel having first and second faces;  
a release coating applied to at least a first area of said panel first face;  
a label having an adhesive face, and disposed over said first area of said panel first face with said adhesive face in contact with said release coating, said label having dimensions significantly less than the dimensions of said panel;  
said panel uncovered except by said label and said release coating;  
means defining a line of weakness in said panel for allowing separation of said panel along said line of weakness, and dividing said panel into first and second portions, said label being disposed in said first portion; and  
means defining an opening capable of receiving an attachment mechanism in said second portion of said panel.
2. An identifying device as recited in claim 1 wherein said panel is substantially quadrate, having first and second end edges parallel to, and spaced from, each other, and first and second side edges parallel to, and spaced from, each other; and wherein said line of weakness is parallel to said end edges.
3. An identifying device as recited in claim 2 wherein said line of weakness is a perforation.
4. An identifying device as recited in claim 3 wherein said label is paper.
5. An identifying device as recited in claim 1 wherein said label is paper.
6. An identifying device as recited in claim 1 further comprising indicia, including price information, on said label, on an opposite face therefrom from said adhesive.
7. An identifying device as recited in claim 6 wherein said label is paper.
8. An identifying device as recited in claim 1 wherein said line of weakness is a perforation.

9. An identifying device as recited in claim 1 wherein said first portion has a larger area than said label.

10. A machine feedable sheet of identifying devices, comprising:

- a first layer of paperboard having first and second faces;  
a release coating on said first face of said first layer;  
a second layer comprising paper having first and second faces;  
adhesive on said first face of said second layer;  
said second layer overlying said first layer so that said first faces thereof are in contact with each other;  
means defining a plurality of die cut quadrate openings, each having a first area, in said second layer, to define labels;  
means defining a plurality of die cut quadrate openings, each having a second area, in said first layer, to define identifying panels;  
said second area being significantly greater than said first area; and  
means facilitating feeding of said sheet into a machine for printing indicia on said labels.
11. A sheet as recited in claim 10 wherein each of said panels comprises means defining a line of weakness therein for allowing separation of said panel along said line of weakness, and dividing said panel into first and second portions, a label being disposed in said first portion of each panel.
12. A sheet as recited in claim 11 further comprising means defining an opening capable of receiving a hook in said second portion of said panel.
13. A sheet as recited in claim 12 wherein said means facilitating feeding of said sheet comprise a plurality of tractor holes along at least one edge of said sheet, said tractor holes extending through both said first and second layers.
14. A sheet as recited in claim 10 further comprising means defining an opening capable of receiving a hook or strand in said second area of said panel.
15. A sheet as recited in claim 10 wherein said means facilitating feeding of said sheet comprise a plurality of tractor holes along at least one edge of said sheet, said tractor holes extending through both said first and second layers.

\* \* \* \* \*

## [54] LABELING

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[73] Assignee: Pay Less Drug Stores Northwest, Inc., Beaverton, Oreg.

[21] Appl. No.: 818,159

[22] Filed: Jul. 22, 1977

## Related U.S. Application Data

[63] Continuation of Ser. No. 601,546, Aug. 4, 1975, abandoned, which is a continuation-in-part of Ser. No. 568,842, Apr. 17, 1975, abandoned.

[51] Int. Cl.<sup>3</sup> ..... G09F 3/00[52] U.S. Cl. .... 428/40; 40/2 R;  
428/41; 428/80; 428/81; 428/121; 428/124;  
428/137[58] Field of Search ..... 428/40, 41, 42, 43,  
428/121, 124, 126, 130, 137, 80, 81; 40/2 R, 21  
R

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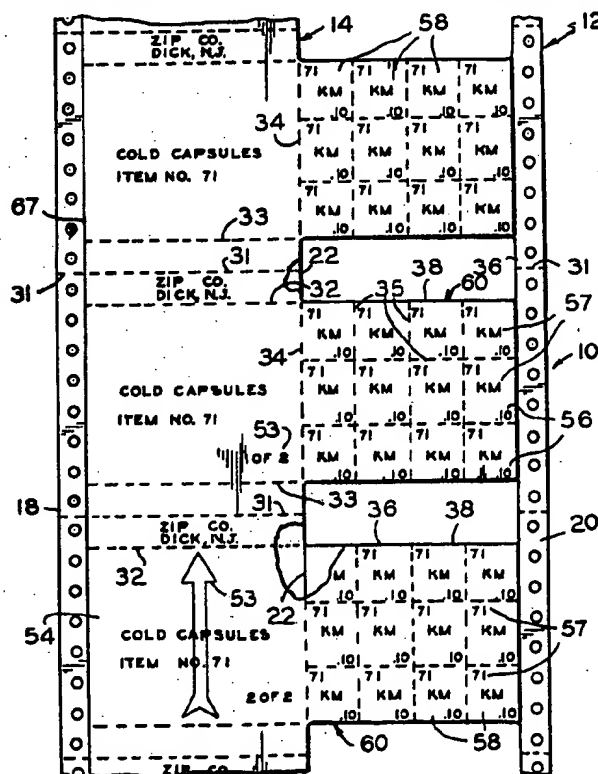
Primary Examiner—William J. Van Balen

Attorney, Agent, or Firm—Klarquist, Sparkman, Campbell, Leigh, Hall &amp; Winston

## [57] ABSTRACT

A computer carrier strip having perforated feed is slit longitudinally and a label price tag strip having a gummed back is adhered to the computer strip, after which the strips are perforated to form tear lines, and cutouts are made to make a composite strip form carrying T-shaped label-price tag sheets connected together by perforated tear lines only at the tops and bottoms of the labels and with the price tag portions separated by the cutouts and connected to the labels only by perforated tear or fold lines superimposed along the slit along the computer strip. A computer prints the names, addresses, contents of shipping cartons on the labels and prices on the price tags. Then, when a carton having merchandise therein is to be shipped, the label for that carton is peeled from the backing strip and carries with it the price tag portion and the portion of the backing strip under the price tag portion. The price tag portion, with its backing strip portion, is folded back under the central portion of the label leaving adhesive upper and lower portions which are pressed against the carton. Then, when the carton reaches its destination and is opened, the user tears the label, with the price tags and backing strip portion from the carton, and removes the gummed price tags as needed. Other computer strips have the labels slit completely from each other, and in one of these computer strips, each label has one corner cut out to facilitate peeling the adjacent label.

16 Claims, 10 Drawing Figures





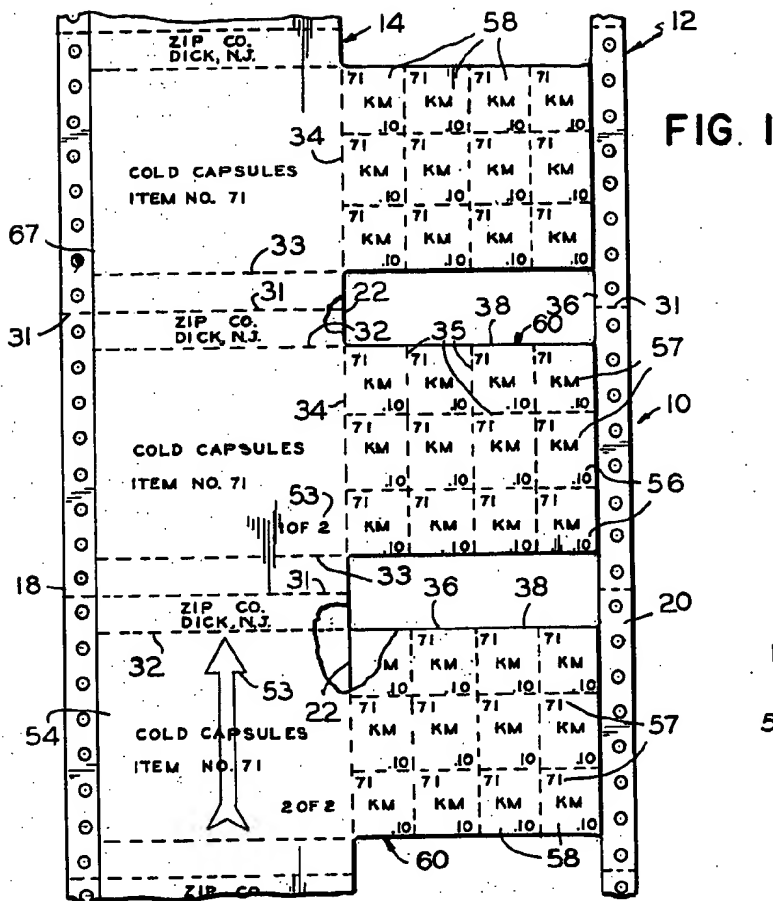


FIG. 1

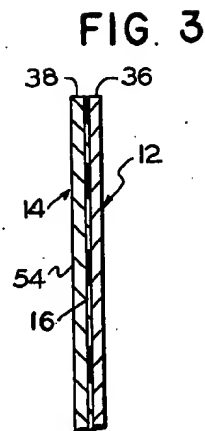


FIG. 3

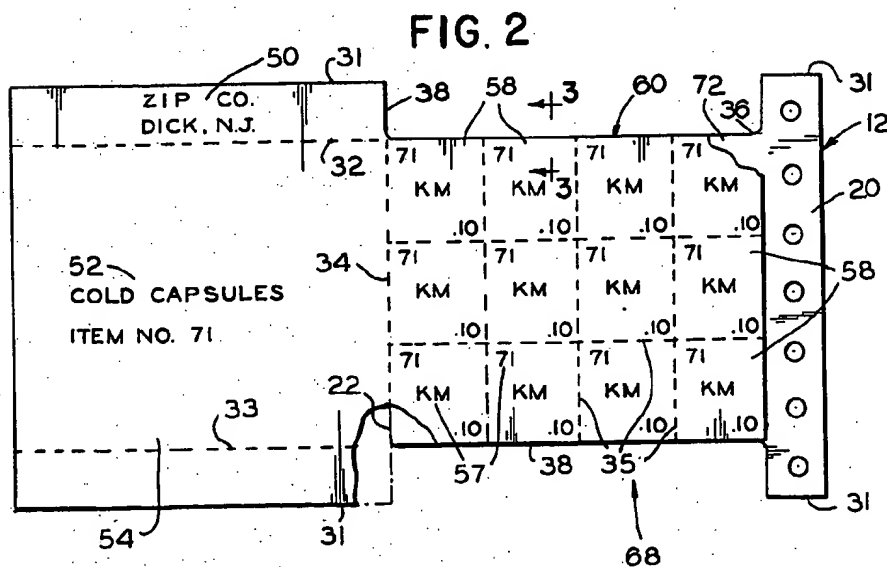


FIG. 2

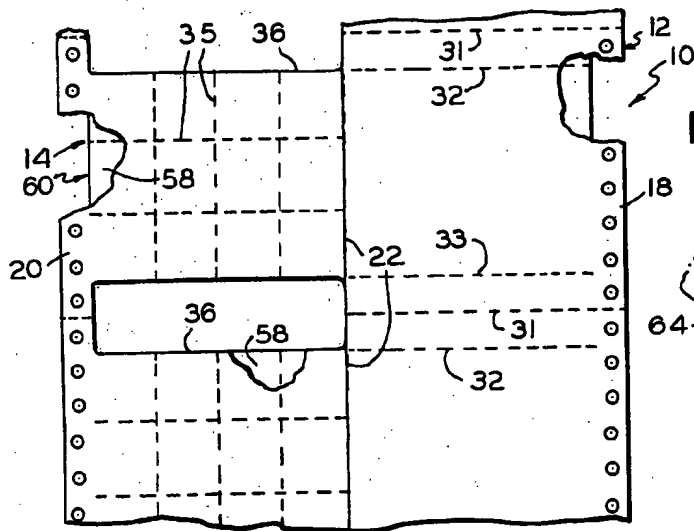


FIG. 4

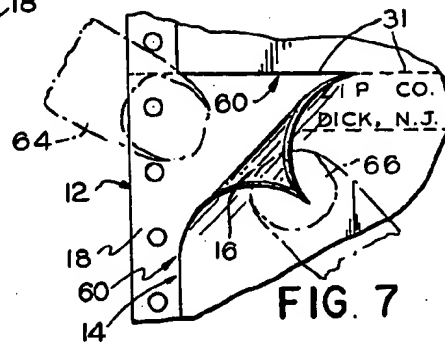


FIG. 7

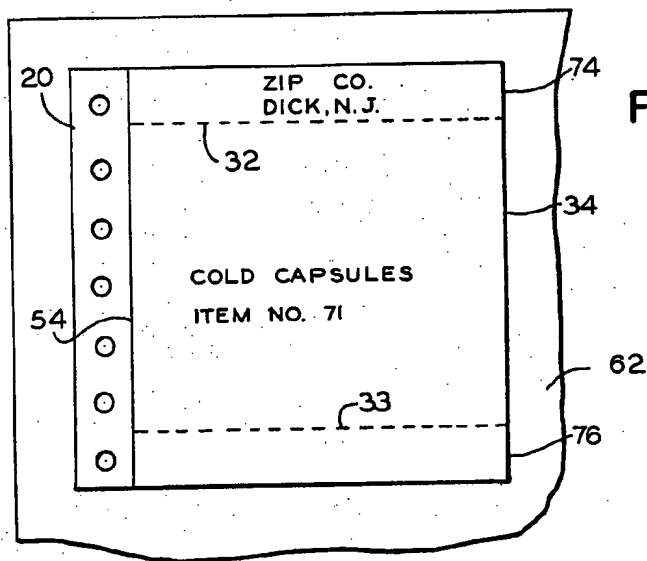


FIG. 5

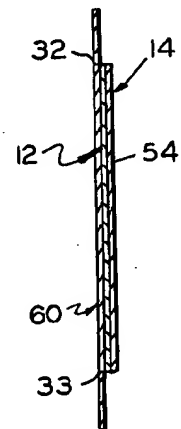


FIG. 8

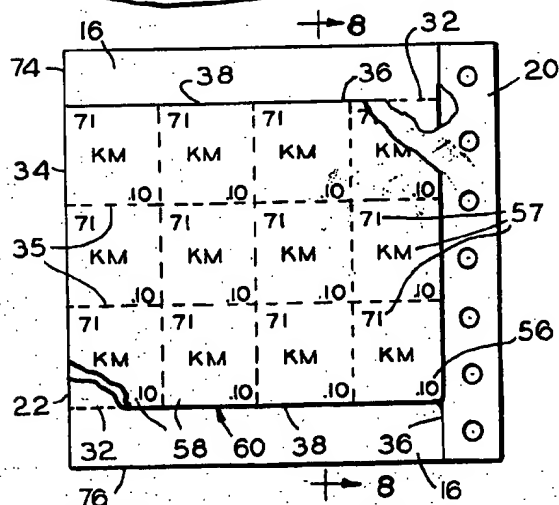
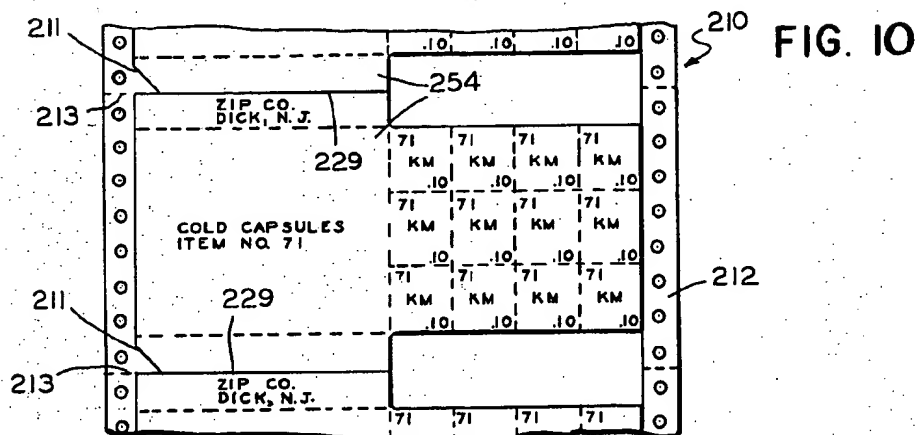
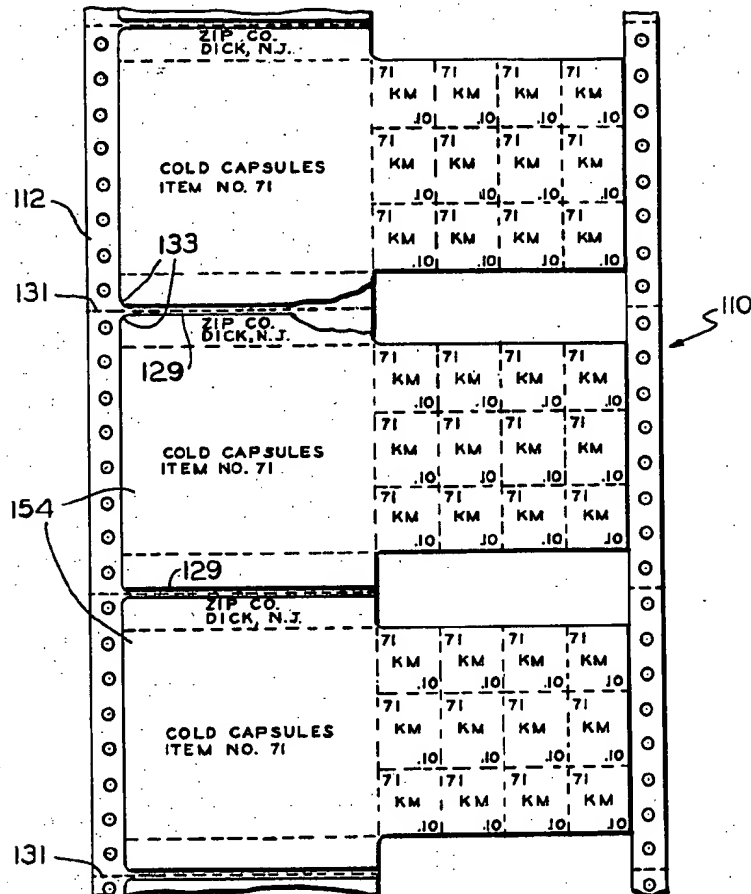


FIG. 6

FIG. 9



## LABELING

This is a continuation of application Ser. No. 601,546, filed Aug. 4, 1975, which is a continuati n-in-part of application Ser. No. 568,842, filed Apr. 17, 1975, both abandoned.

## DESCRIPTION

This invention relates to improved labeling, and has for an object thereof the provision of new and improved labeling.

Another object of the invention is to provide a label-price tag sheet wherein a price tag portion is folded under only a part of a label portion which has adhesive on the uncovered portion for securing the sheet to a carton.

Another object of the invention is to provide a generally T-shaped label-price tag sheet wherein a price tag portion having adhesive on the back thereof forms the narrower stem of the T and is foldable back under a wider label portion along with a separating sheet between the price tag and label portions to leave margins of the label portion which has adhesive on its back side.

A further object of the invention is to provide an improved method of making a computer strip form in which a combined backing and carrier strip is slit longitudinally, a label-price tag strip is adhered to the carrier strip to hold the two halves of the carrier strip together and perforated tear and fold lines are formed in the strips.

Another object of the invention is to provide a computer strip form including a computer carrier strip and a label-price tag strip having pressure sensitive adhesive on its back secured to the central portion of the carrier strip, and perforated and/or cut lines in the carrier strip and the label-price tag strip to permit label-price tag sheets to be peeled from the carrier strip and carrying separated portions of the carrier strip adapted to separate label and price tag portions when the price tag portions are folded back under the label portions and to leave uncovered parts of the adhesive covered backs of the labels for attaching the labels to cartons.

Another object of the invention is to provide a computer strip form having a carrier strip slit longitudinally and a label-price tag strip having pressure sensitive adhesive on its back on the carrier strip and holding the two halves of the carrier strip together, cutouts being formed in the strips from the slit toward one edge of the strips and tear perforations also being formed in the label-price tag strip to define label-price tag sheets in which wider label portions can be peeled from the carrier strip and take therewith narrower price tag portions having carrier strip portions thereunder.

In the drawings

FIG. 1 is a fragmentary, top plan view of an improved computer strip form forming one embodiment of the invention;

FIG. 2 is an enlarged top plan view of a label-price tag composite of the strip form of FIG. 1 and forming one embodiment of the invention;

FIG. 3 is an enlarged, fragmentary sectional view taken along line 3—3 of FIG. 2;

FIG. 4 is an enlarged, fragmentary, bottom plan view of the computer strip form of FIG. 1;

FIG. 5 is an enlarged, fragmentary top plan view of a carton having the label-price tag adhered thereto with

the label portion uppermost and the price tag portion folded thereunder.

FIG. 6 is an enlarged bottom plan view of the label-price tag composite of FIG. 5;

FIG. 7 is an enlarged, fragmentary, top plan view of the computer strip form with one of the label portions being peeled off the carrier strip;

FIG. 8 is an enlarged, sectional view taken along line 8—8 of FIG. 6;

FIG. 9 is a fragmentary, top plan view of a computer strip forming an alternate embodiment of the invention; and

FIG. 10 is a fragmentary, top plan view of a computer strip forming an alternate embodiment of the invention.

Referring now in detail to the drawings, there is shown in FIGS. 1 and 4 a computer strip form 10 forming one specific embodiment of the invention and including a paper carrier strip 12 and a label-price tag paper strip 14 having a pressure sensitive backing 16 thereon sticking the strip 14 to the strip 12 between perforated margins 18 and 20 of the carrier strip. In forming the strip form 10, a knife cut 22 (FIG. 4) is made along the entire length of the centerline of the carrier strip 12 after which the strip 12 is pressed against the front face of the strip 14 to adhere the two strips together, the strip 14 then holding the two halves of the longitudinally split strip 12 together. Then, perforated tear lines 31—35 are formed through the sheets 12 and 14 and rectangular cutouts or holes 36 and notches 38 are made in the strips 12 and 14, respectively, the lines 31 and 34 also being fold lines.

After the strip form 10 is so formed, it folds along lines 31 into a stack, and is run through a computer (not shown) which prints names and addresses 50 and contents identification 52 and any other desired indicia 53 on label portions 54 of the strip 14. It also prints prices 56 and other desired indicia 57 on price tags 58 of price tag portions 60, which are joined to the label portions 54 by the fold lines 34. Then, the so printed out strip form is sent to a warehouse, and, when a carton 62 (FIG. 5) is to be sent to a store, the label portion 54 printed for that carton is peeled from the continuous strip half 67 of the strip 12, thumbs 64 and 66 of the user being shown in the peeling in FIG. 7, and the margin 12 is torn at the lines 31 to remove a label-price tag composite or assembly 68 as shown in FIG. 2. The composite 68 includes the label portion 54 gummed on its uncovered back with the pressure sensitive adhesive 16, the price tag portion 60 and a T-shaped segment 72 of the strip 12 adhered to and covering the gummed back of the price tag portion 60. The price tag portion then is folded back, along the line 34, under the label portion and the segment is adhered to the central portion of the label portion 54, as shown in FIGS. 5 and 6, leaving gummed upper and lower margins 74 and 76 uncovered. The composite then is placed on the carton 62 and the gummed margins are pressed against the paper carton to stick the composite to the carton, as shown in FIG. 5. Then, when the carton has arrived at its destination and is opened up, the user merely tears off the composite, tearing off the margins at tear lines 32 and 33, and peels and tears off the price tags 58 one at a time and sticks them on the goods from the carton.

While the composite 68 is on the carton, the price tags are covered and protected, and are not visible so that confidentiality of pricing is maintained. Also, the price tags are always fixed to the label portion 54 and

therefore with the carton so as to be readily available whenever the carton is opened, the price tags being adhered to the segment 72 and the segment 72 being adhered to the label portion.

The faces of the carrier strip 12 are somewhat waxy so that the pressure sensitive adhesive 16, while sticking thereto, can be readily peeled off. If a carton is to have an exceptionally large number of units, more than the number of price tags on one price tag portion 60, the computer prints an arrow 80 (FIG. 1) on one or more of the immediately succeeding label portions 54 and this composite (or composites) are also torn off, the price tag portion folded back, and the label portion also stuck onto the carton.

Each composite 68 may be peeled and torn from the strip form with a single sweep. While the cutouts 36 and 38 are preferred, it will be understood that instead of the cutouts, very weak tear lines may be formed at the tops and bottoms of the cutouts 36 and 38 and complete cuts formed at the right-hand edges of the cutouts 36, as viewed in FIG. 1. However, these latter tear lines must be very weak to readily separate the composites along these lines.

#### Embodiment of FIG. 9

A computer strip 110 forming an alternate embodiment of the invention is like the computer strip 10 of FIGS. 1-4 except that, to facilitate folding of the strip and also the peeling of each label portion 154 from carrier strip 112, the label portions are separated by narrow cutout portions 129, which are superposed over perforated tear lines 131 in the carrier strip. Corner portions 133 of the labels are rounded. Also, as another alternative, it will be understood that the perforated lines 31 (FIGS. 2-5) may be such as to be much more easily torn than the lines 32 and 33.

#### Embodiment of FIG. 10

A computer strip 210 forming an alternate embodiment of the invention is like a computer strip 110 except that in the strip 210, knife cuts 229 are provided, and may have corner cutouts 211 made to enable corners 213 to be easily lifted from carrier strip 210 to start the peeling of each label portion 254 from carrier strip 212.

What is claimed is:

1. In a label-price tag composite, a shipping label having an adhesive on the back side thereof, a backing sheet adhered to the back side of the label, and a price tag sheet secured at one edge thereof to one edge of the label with a fold line formed therebetween and having an adhesive on the back side thereof, the price tag sheet being folded along said edges back under the label and the backing sheet and adhered to the backing sheet and peelable therefrom, the price tag sheet and the backing sheet covering only a portion of the back side of the label and leaving uncovered at least a portion of the back side of the label, whereby the uncovered portion of the back side of the label can be adhered to an article to be shipped, the backing sheet extending no farther under the price tag sheet than the fold line so that the price tag sheet is easily folded under the label.
2. The label-price tag composite of claim 1 wherein the uncovered portion of the back side of the label comprises at least one edge portion of the label.

3. The label-price tag composite of claim 2 wherein the uncovered portion of the back side of the label comprises at least two opposite edge portions of the label.

4. The label-price tag composite of claim 3 wherein the price tag sheet and the label are, before the price tag sheet is folded back on the label, substantially T-shaped.

5. The label-price tag composition of claim 4 wherein a backing sheet is adhered to and is carried by the price tag sheet before the price tag sheet is folded back on the label.

6. In a computer strip form construction,

a non-adhesive carrier strip having a pair of perforated feed portions along the side edges thereof and a central, fully cut line paralleling the side edges to form two side-by-side backing portions,

a plurality of carton labels each of a predetermined height and pressure sensitive adhesive on the back thereof adhering the label to one of the backing portions,

a plurality of price tag sheets each comprising a plurality of price tags secured to each other and to the carton label along tear lines and pressure sensitive adhesive on the backs thereof adhering the sheet to the other backing portion,

the tear lines between the carton labels and the price tag sheets forming fold lines,

the carton labels and the price tag sheets serving to secure the backing portions of the carrier strip together,

each of the price tag sheets being of a height less than that of the carton labels and being between the upper and lower edges of each carton label, the backing portion covering the back of the carton label being removable so that the price tag sheet and other backing portion can be folded back on and the other backing portion be adhered to the back of the shipping label with exposed portions of the back of the shipping label being adherable to a carton,

said other backing portion being in separated segments each being under one of the price tag sheets and being of a height less than that of the carton label secured to said one of the price tag sheets.

7. The computer strip form construction of claim 6 wherein the labels are each completely separate from each other.

8. The computer strip form construction of claim 7 wherein knife cuts separate the labels from each other.

9. The computer strip form construction of claim 8 wherein each label has a corner cut out portion to facilitate peeling an adjacent label.

10. The computer strip form construction of claim 7 wherein at least portions of each pair of adjacent labels are spaced from each other.

11. The computer strip form construction of claim 10 wherein each label has a cutout corner portion.

12. The computer strip form construction of claim 10 wherein each pair of adjacent labels are spaced slightly from each other along the entire lengths thereof.

13. The label-price tag composite of claim 1 wherein the edge of the price tag sheet adjacent the label is secured to the label along a sufficient portion of the entire length of that edge that folding of the price tag sheet transversely of that edge is prevented.

14. The computer strip form construction of claim 6 wherein the edge of each price tag sheet adjacent its associated label being secured to that label along a suffi-

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cient portion of the entire length of that edge that holding of the price tag sheet transversely of that edge is prevented.

15. The computer strip form construction of claim 6 wherein said other backing portion has cutouts to define the upper and lower edges of the separated segments and position the upper edge of each segment below the upper edge of the adjacent label and the lower edge of each segment above the lower edge of the adjacent label, the cutouts leaving only the adjacent perforated feed portion intact.

16. In a computer strip form construction of a non-adhesive carrier strip having a pair of perforated feed portions along the side edges thereof and a central cut line paralleling the side edges and dividing the strip into a label portion and a price tag portion,

and a label-price tag strip having a label section and a price tag section side-by-side, the label section comprising a series of labels separable from each other, the label-price tag strip having on the back thereof a pressure sensitive adhesive adhered to the carrier

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strip and holding the label portion and the price tag portion of the carrier strip together with the label section adhered to the label portion and the price tag section adhered to the price tag portion,

the price tag section and price tag portion having cut-out portions to separate the price tag portion into a series of separated segments secured together only by one of the perforated feed portions so that when the price tag section and portion are folded back under the label section, they leave exposed at least part of the back side of each label,

the edge of each price tag section adjacent its associated label section being secured to that label section along the entire length of that edge so that folding of the price tag sheet transversely of that edge is prevented,

each cutout portion extending below the upper edge of the adjacent label and also extending above the lower edge of the label just above the adjacent label.

\* \* \* \* \*

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UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 4,110,502  
DATED : August 29, 1978  
INVENTOR(S) : JAMES BAER

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Col. 4, line 8 (claim 5, line 1), change "composition"  
to --composite--

**Signed and Sealed this**

*Twenty-seventh* **Day of** *March* 1979

[SEAL]

*Attest:*

**RUTH C. MASON**  
*Attesting Officer*

**DONALD W. BANNER**  
*Commissioner of Patents and Trademarks*

**Notice of Adverse Decision in Interference**

In Interference No. 100,328, involving Patent No. 4,110,502, J. Baer, LABELING, final judgment adverse to the patentee was rendered Jan. 22, 1981, as to claims 1, 2 and 3.

*[Official Gazette April 14, 1981.]*





US006550166B1

(12) **United States Patent**  
**Lyon**

(10) **Patent No.:** **US 6,550,166 B1**

(45) **Date of Patent:** **Apr. 22, 2003**

(54) **LICENSE PLATE FRAME AND METHOD OF USE**

5,950,339 A \* 9/1999 Lucier ..... 40/209  
D428,374 S 7/2000 Steinhagen

(76) **Inventor:** **Michael E. Lyon**, 1515 S. Center,  
Redlands, CA (US) 92373

\* cited by examiner

(\*) **Notice:** Subject to any disclaimer, the term of this  
patent is extended or adjusted under 35  
U.S.C. 154(b) by 0 days.

**Primary Examiner**—Cassandra H. Davis

(74) **Attorney, Agent, or Firm**—Eric Karich

(57) **ABSTRACT**

A license plate frame for use, in combination, with a toy license plate, includes upper and lower horizontally extending sections and vertically disposed end sections extending between and integrally connected to the opposite ends of the horizontally extending sections. Each of the horizontally extending sections and end sections has a frontal wall that is substantially parallel to the plane of the license plate frame, and an outer enclosure wall extending rearwardly from the plane of the license plate frame. The frontal walls have a front surface and an opposing rear surface. The front and rear surfaces each terminate at an inner edge and an outer edge. The inner edges cooperate to form a display aperture. An inner frame wall extending rearwardly from the rear surface of each of the frontal walls, between the inner edge and the outer enclosure wall. At least two plate retaining flanges extend inwardly from the inner frame terminal edge. The license plate frame is shaped to receive a toy license plate having a front plate surface printed with a design, such that the design is displayed through the display aperture.

(21) **Appl. No.:** **09/631,752**

(22) **Filed:** **Aug. 3, 2000**

**Related U.S. Application Data**

(63) Continuation-in-part of application No. 29/125,589, filed on  
Jun. 26, 2000, now Pat. No. Des. 437,815.

(51) **Int. Cl.**<sup>7</sup> ..... **G09F 7/00**

(52) **U.S. Cl.** ..... **40/209; 40/791**

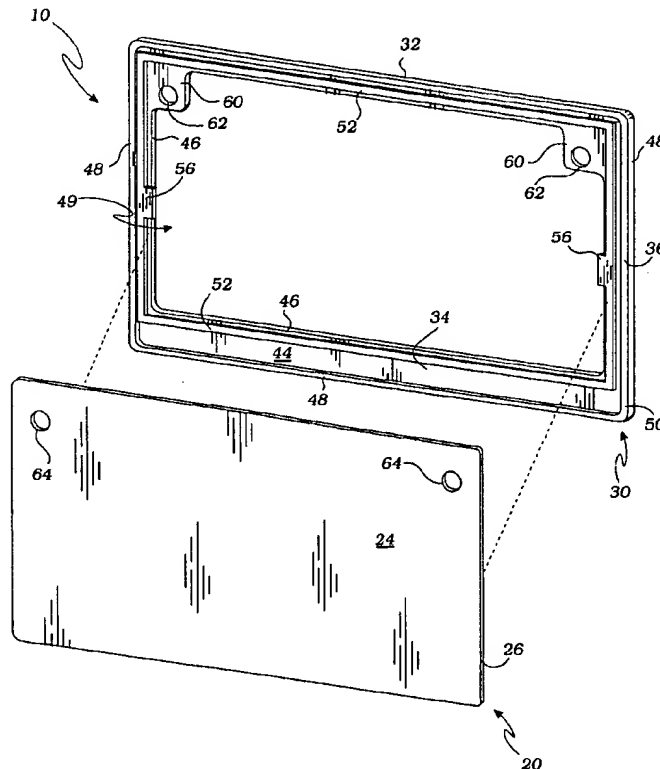
(58) **Field of Search** ..... **40/209, 790, 791**

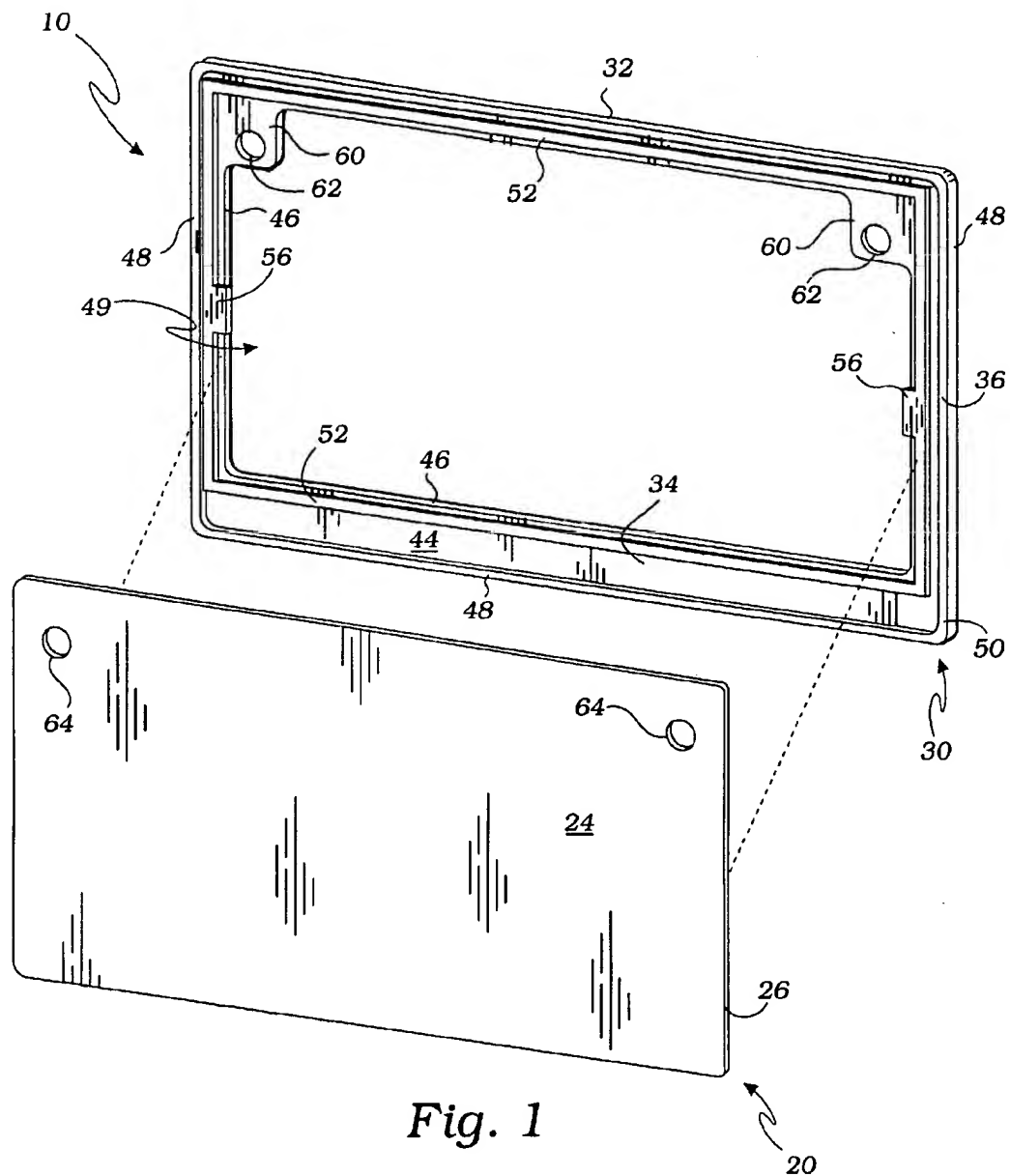
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4,170,838 A 10/1979 Bott  
D331,217 S 11/1992 Spencer  
5,428,911 A \* 7/1995 Figone et al. .... 40/209  
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**1 Claim, 3 Drawing Sheets**





*Fig. 1*

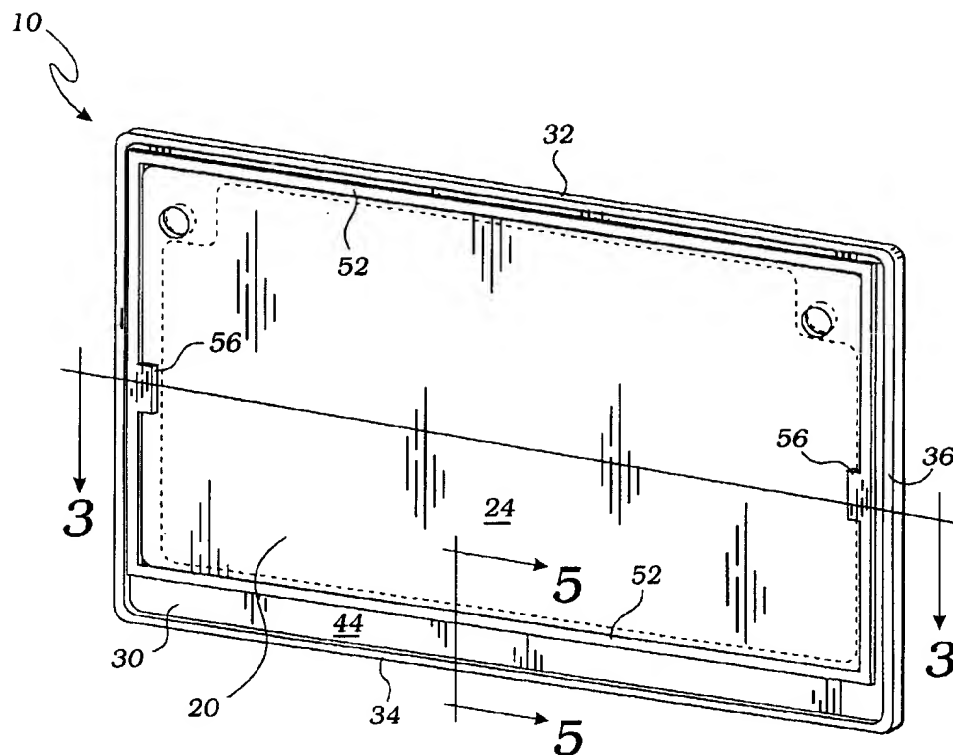


Fig. 2

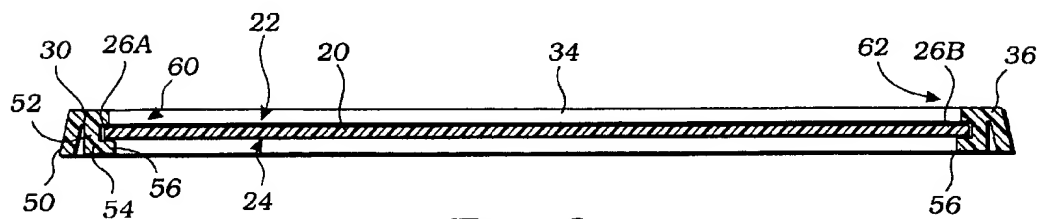


Fig. 3

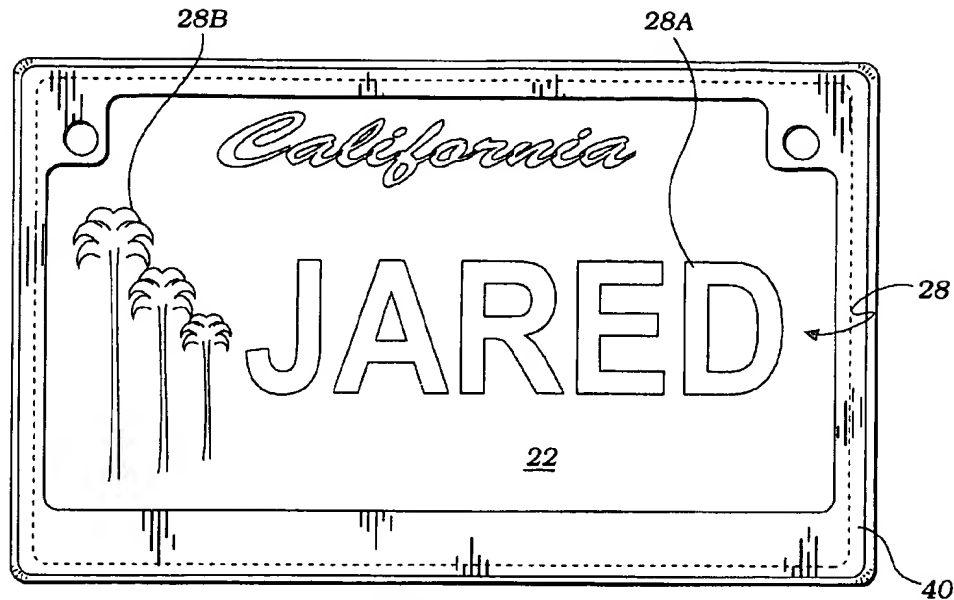


Fig. 4

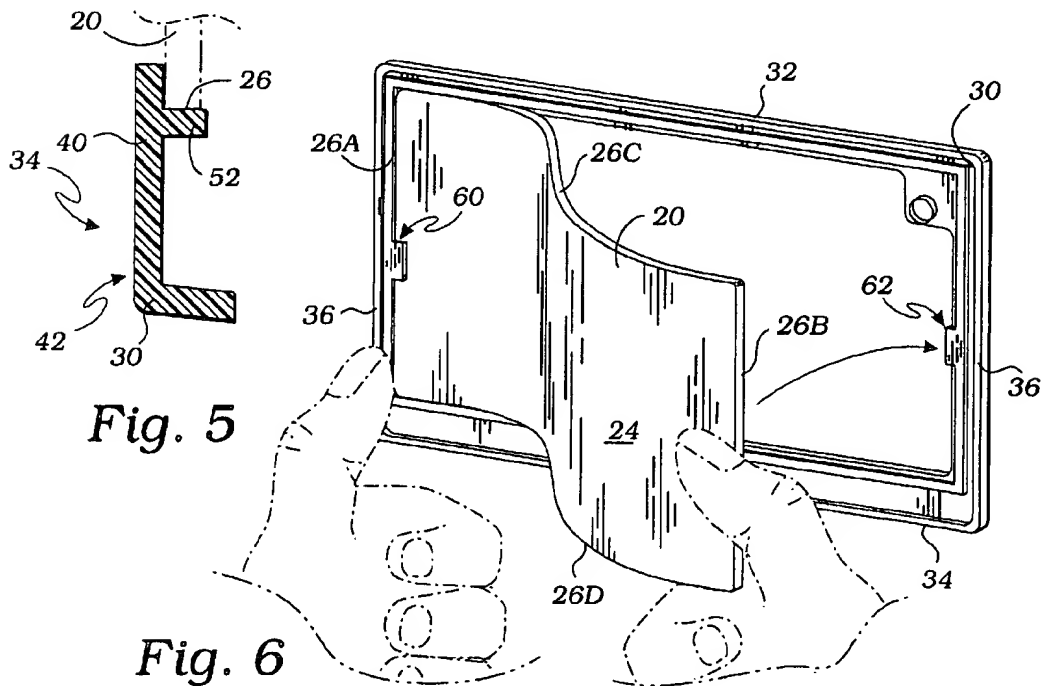


Fig. 5

Fig. 6

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## LICENSE PLATE FRAME AND METHOD OF USE

### CROSS-REFERENCE TO RELATED APPLICATIONS

This application for a utility patent is a continuation-in-part of a previously filed design patent application having the application number 29/125,589, filed Jun. 26, 2000 now U.S. Pat. No. DES. 437,815.

### STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH

Not Applicable

### BACKGROUND OF THE INVENTION

#### 1. Field of the Invention

This invention relates generally to license plate frames, and more particularly to a license plate frame having a "frame-within-a-frame" that allows a toy license plate to be mounted within the license plate frame without obscuring a design printed on a front plate surface of the toy license plate.

#### 2. Description of Related Art

The prior art includes various license plate frames for holding license plates onto automobiles. The prior art frames tend to be simple frames having a wide and decorative front surface. The license plate and the license plate frame are both attached to an automobile with a simple fastening mechanism such as a pair of screws. Since ordinary license plates include a plain border around the perimeter, it is acceptable for the perimeter of the license plate to be obscured by the wide border of the license plate frame. Examples of such prior art frames are shown in Bott, U.S. Pat. No. 4,170,838, Spencer, U.S. Des. 331,217, and Steinhagen, U.S. Des. 428,374.

Toy license plates are also known in the art. These toys are typically constructed of rectangular plastic sheets that are approximately 2¼ inches by 4 inches. Since the toy license plates are not typically placed in license plate frames, the design printed on their front surface typically extends to the edge of the toy license plate. If the toy license plate is then placed in a frame, a large portion of the design is obscured from view, especially since the license plate frame must have a wide front surface in order to look good.

The prior art teaches toy license plates and license plate frames. However, the prior art does not teach a license plate frame having a "frame-within-a-frame" that allows a toy license plate to be mounted within the license plate frame without obscuring the design printed on the front of the toy license plate. The present invention fulfills these needs and provides further related advantages as described in the following summary.

### SUMMARY OF THE INVENTION

The present invention teaches certain benefits in construction and use which give rise to the objectives described below.

The present invention provides a license plate frame for use, in combination, with a toy license plate, includes upper and lower horizontally extending sections and vertically

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disposed end sections extending between and integrally connected to the opposite ends of the horizontally extending sections. Each of the horizontally extending sections and end sections has a frontal wall that is substantially parallel to the plane of the license plate frame, and an outer enclosure wall extending rearwardly from the plane of the license plate frame. The frontal walls have a front surface and an opposing rear surface. The front and rear surfaces each terminate at an inner edge and an outer edge. The inner edges cooperate to form a display aperture. An inner frame wall extending rearwardly from the rear surface of each of the frontal walls, between the inner edge and the outer enclosure wall. At least two plate retaining flanges extend inwardly from the inner frame terminal edge. The license plate frame is shaped to receive a toy license plate having a front plate surface printed with a design, such that the design is displayed through the display aperture.

A primary objective of the present invention is to provide a license plate frame having advantages not taught by the prior art.

Another objective is to provide a license plate frame having an inner frame wall, a "frame-within-a-frame", to frame the toy license plate without obscuring the design.

A further objective is to provide a license plate frame that provides a visually appealing, well proportioned front surface.

Other features and advantages of the present invention will become apparent from the following more detailed description, taken in conjunction with the accompanying drawings, which illustrate, by way of example, the principles of the invention.

### BRIEF DESCRIPTION OF THE DRAWING

The accompanying drawings illustrate the present invention. In such drawings:

FIG. 1 is an exploded rear perspective view of the preferred embodiment of the present invention;

FIG. 2 is a rear perspective view thereof;

FIG. 3 is a sectional view thereof taken along line 3—3 in FIG. 2;

FIG. 4 is a front elevational view thereof;

FIG. 5 is a sectional view thereof taken along line 5—5 in FIG. 2; and

FIG. 6 is a rear perspective view illustrating how a toy license plate is inserted into a license plate frame.

### DETAILED DESCRIPTION OF THE INVENTION

The above described drawing figures illustrate the invention, a combination 10 that includes a toy license plate 20 and a license plate frame 30. The license plate frame 30 includes a novel "frame-within-a-frame" that, used in combination with the toy license plate 20, enables the display of a design 28 on the toy license plate 20 without having the license plate frame 30 block a portion of the design 28.

As shown in FIGS. 1–6, the license plate frame 30 is generally rectangular in shape and includes upper and lower horizontally extending sections 32 and 34 and vertically disposed end sections 36 extending between and integrally

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connected to the opposite ends of the horizontally extending sections. Each of the horizontally extending sections 32 and 34 and end sections 36 has a frontal wall 40 that is substantially parallel to the plane of the license plate frame 30, and an outer enclosure wall 50 extending rearwardly from the plane of the frontal wall 40 being substantially parallel to the plane of the license plate frame 30, this relationship is merely meant to be generally descriptive of its orientation rather than a functional physical relationship. Since a planar relationship is preferred, but not required, this limitation should be construed broadly to include various curves and angles that disrupt the planar relationship, as long as the general relationship of the license plate frame 30 is the same with respect to the toy license plate 20.

The frontal walls 40 have a front surface 42 and an opposing rear surface 44. The front and rear surfaces 42 and 44 each terminate at an inner edge 46 and an outer edge 48. The front surface 42 is preferably a visually pleasing frame surface, as shown in Bott, U.S. Pat. No. 4,170,838, Spencer, U.S. Des. 331,217, and Steinhagen, U.S. Des. 428,374, hereby incorporated by reference. Various design features can be devised by those skilled in the art, although a plain frame surface is preferred, as long as the front surface 42 is wide enough to provide a visually pleasing frame for the toy license plate 20. The inner edges 46 cooperate to form a display aperture 49. The outer enclosure walls 50 extend rearwardly from the outer edges 48. These elements of the license plate frame 30 are generally similar to prior art frames.

As shown in FIG. 1, connector portions 60 extends between the horizontally extending portion 32 and each of the vertically disposed end sections 36. A screw aperture 62 is formed through each of the connector portions 60. The toy license plate 20 includes apertures 64 that are shaped to correspond with the screw apertures 62 when the toy license plate 20 is positioned within the license plate frame 30.

The critical novelty of the present invention lies in the formation of an inner frame wall 52 extending rearwardly from the rear surface 44 of each of the frontal walls 40, between the inner edge 46 and the outer enclosure wall 50. The inner frame walls 52 cooperate to form the "frame-within-a-frame" unique to the present invention. The inner frame walls 52 extending rearwardly from the frontal wall 40 and terminate at an inner frame terminal edge 54. At least two plate retaining flanges 56 extend inwardly from the inner frame terminal edge 54. The inner frame walls 52 are preferably integral with the remainder of the license plate frame 30. The license plate frame 30 is preferably a single, integral plastic construction.

As shown in FIGS. 1-6, the toy license plate 20 that is preferably used with the above-described license plate frame 30 preferably includes a front plate surface 22 and an opposing back plate surface 24, the front and back plate surfaces 22 and 24 being connected by a plate terminal edge 26. The plate terminal edge 26 preferably includes a first vertical edge 26A and a second vertical edge 26B, the first and second vertical edges 26A and 26B being connected by first and second horizontal edges 26C and 26D. The front plate surface 22 has a design 28 imprinted thereon, preferably a name 28A, and a state graphic 28B, printed to resemble an ordinary license plate.

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The toy license plate 20 is shaped to fit within the license plate frame 30 such that the plate terminal edge 26 contacts the inner frame walls 52, the front plate surface 22 contacts the rear surface 44 of the frontal wall 40, and the back plate surface 24 contacts the at least two plate retaining flanges 56 of the license plate frame 30. In this position, the design 28 of the front plate surface 22 is visible through the display aperture 49. It is critical that the design 28 be visible through the display aperture 49, and it is the use of the inner frame walls 52 that makes this possible. Prior art frames, described above, do not have the inner frame walls 52, and would be forced to rely on the outer enclosure walls 50 to contain the toy license plate 20, in which case the entire width of the frontal wall 40 would obscure the design 28 printed on the toy license plate 20.

The toy license plate 20 preferably includes a pair of screw apertures 64 shaped to receive a screw or other fastening device for fastening the toy license plate 20 to a surface. The license plate frame 30 preferably includes a pair of matching screw apertures 66 shaped to match the pair of screw apertures 64 of the toy license plate 20 and allow the screws to pass through the license plate frame 30 as well as the toy license plate 20, thereby fastening both together and to the surface.

The invention includes the method of displaying the toy license plate 20 using the license plate frame 30 described above. As shown in FIG. 6, the toy license plate 20 is inserted into the license plate frame 30 so that the design 28 is visible through the display aperture 49. To insert the toy license plate 20 into the license plate frame 30, the first vertical edge 26A is inserted into a first recess 60 defined by the inner frame wall 52, the rear surface 44 of the frontal wall 40, and one of the at least two plate retaining flanges 56. The second vertical edge 26B of the toy license plate 20 is then biased towards the first vertical edge 26A, allowing the second vertical edge 26B to be inserted into a second recess 62 defined by the inner frame wall 52, the rear surface 44 of the frontal wall 40, and one of the at least two plate retaining flanges 56. When the bias is released, the natural resilience of the toy license plate 20 causes the toy license plate 20 to return to its normal shape and firmly seat the first and second vertical edges 26A and 26B within the first and second recesses 60 and 62, and leaving the design 28 of the front plate surface 22 visible through the display aperture 49.

While the invention has been described with reference to at least one preferred embodiment, it is to be clearly understood by those skilled in the art that the invention is not limited thereto. Rather, the scope of the invention is to be interpreted only in conjunction with the appended claims.

What is claimed is:

1. A license plate frame adapted for cooperation with a toy license plate having a front plate surface and an opposing back plate surface, the front and back plate surfaces being connected by a plate terminal edge the front plate surface having a design imprinted thereon, the license plate frame comprising:

upper and lower horizontally extending sections and vertically disposed end sections extending between and integrally connected to the opposite ends of the horizontally extending sections to form a generally rectangular shape;

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each of the horizontally extending sections and end sections having a frontal wall that is substantially parallel to the plane of the license plate frame, and an outer enclosure wall extending rearwardly from the plane of the license plate frame;

the frontal walls having a front surface and an opposing rear surface, the front and rear surfaces terminating at an inner edge and an outer edge;

the inner edges of the frame sections cooperating to form a display aperture;

the outer enclosure walls extending rearwardly from the outer edges;

an inner frame wall extending rearwardly from the rear surface of each of the frontal walls between the inner

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edge and the outer enclosure wall, each of the inner frame walls extending rearwardly from the frontal wall and terminating in an inner frame terminal edge;

at least two plate retaining flanges, each of the at least two plate retaining flanges extending inwardly from the inner frame terminal edge;

connector portions extending between the horizontally extending portion and each of the vertically disposed end sections; and

a screw aperture formed through each of the connector portions.

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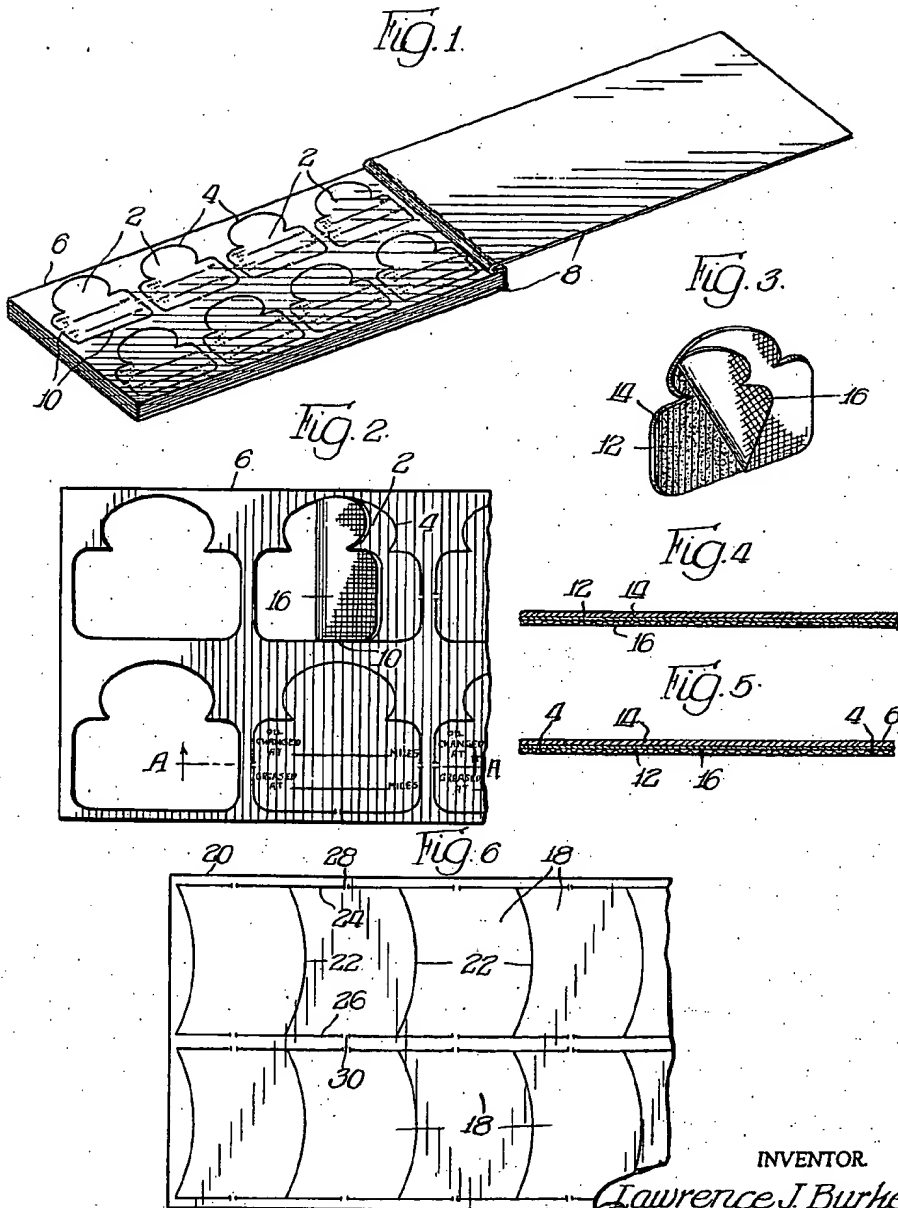
Sept. 3, 1940.

L. J. BURKE

2,213,666

OIL CHANGE REMINDER UNIT

Filed May 25, 1938



INVENTOR

Lawrence J. Burke,

BY

Richard Spencer

ATTORNEY.



## UNITED STATES PATENT OFFICE

2,213,666

## OIL CHANGE REMINDER UNIT

Lawrence J. Burke, Chicago, Ill.

Application May 25, 1938, Serial No. 209,896

2 Claims. (Cl. 40—2)

This invention relates to new and improved oil change reminder units and to a new and improved assembly of such reminder units by which they are made available in a convenient and useful form without soiling.

The usual type of oil change reminder unit consists of a paper or celluloid tag provided with a hole or slot by means of which it can be fastened to the hand throttle on the dashboard of an automobile. These tags suffer from the disadvantage that they readily become disengaged from the hand throttle or other portion of the automobile to which they are fastened and are lost, thus making it impossible for the owner of the car to know when to change the oil and have the car greased.

One of the objects of the present invention is to provide a new and improved type of oil change reminder unit which cannot become readily detached from the portion of the automobile to which it is applied and hence, does not become lost easily.

Another object of this invention is to provide a new and improved type of oil change reminder unit which can be used on any type of automobile and which can readily be applied to and removed from any smooth plane surface, as, for example, the dashboard or the windshield, without marring said surface.

Still a further object of the invention is to provide a means of assembling a plurality of said oil change reminder units in a form in which they are readily accessible to the operator of a gasoline filling station and in a manner such that they may be kept without substantial soiling.

Still a further object is the provision of reminder units of the type described with a minimum amount of waste.

In accomplishing these objects in accordance with this invention, I provide an oil change reminder unit comprising a base material having one surface adapted to receive writing, printing and the like, and the opposite surface coated with a pressure sensitive adhesive of such a nature that the unit may be readily applied to and removed from plane surfaces, as, for example, the windshield, the dashboard or other smooth metal or glass parts of an automobile.

A further embodiment of the invention consists in the provision of a book assembly of such reminder units, said book containing a plurality of sheets having the oil change reminder units die cut therein and held in position merely by the pressure sensitive adhesive or by the pressure

sensitive adhesive in conjunction with small uncut marginal portions of the reminder units. For the purpose of this invention said reminder units to be assembled in book form are preferably mounted on holland cloth or some other sheet material which can act as a backing for the pressure sensitive adhesive and at the same time be readily strippable therefrom.

Other features and advantages of the invention will be apparent by reference to the following description in conjunction with the accompanying drawing, in which:

Figure 1 represents a book or assembly of oil change reminder units;

Figure 2 illustrates an enlarged view of one of the sheets of said units from the book of Figure 1 with parts broken away and showing the manner in which individual reminder units may be removed from the complete assembly unit;

Figure 3 illustrates an individual oil change reminder unit showing the manner in which the holland cloth or other strippable backing material is removed from said unit prior to attaching it to the windshield, dashboard, mirror or other part of the automobile;

Figure 4 illustrates an enlarged cross-sectional view of the reminder unit shown in Figure 3;

Figure 5 illustrates an enlarged cross-sectional view of a portion of the assembly sheet shown in Figure 2 taken along line A—A, and showing the manner in which each reminder unit is die cut;

Figure 6 illustrates a modification of the invention according to which the reminder units may be disposed in assembled sheet form substantially without waste.

As shown in Figure 1, oil change reminder units 2 are die cut along lines 4 from a sheet 6. Sheet 6 together with similar underlying sheets which have been similarly die cut is assembled and bound in a suitable backing 8 which may contain advertising and instructions for the use of the oil change reminders. As illustrated, units 2 are preferably completely die cut with the exception of very small uncut portions 10. These uncut portions 10 are preferably provided as a precaution that units 2 will not become accidentally dislodged or removed from sheet 6 before they are ready for use. Oil change reminder units 2 are also held in place by the pressure sensitive adhesive which forms an intermediate layer between the front or printable face and the holland cloth or strippable material on the rear thereof.

The position of the pressure sensitive adhesive is illustrated by the cross-sectional view in Figure 4 in which pressure sensitive adhesive 12 is shown disposed intermediately between the front or printable portion 14 and the rear or strippable portion 16 of unit 2. When unit 2 is die cut along lines 4, 4, as shown by the cross-sectional view in Figure 5, the portions 14 and 16 thereof are substantially severed. Likewise, the pressure sensitive adhesive coating 12 is severed. The cutting is carried out in such a way, however, that the relative position of unit 2 with respect to sheet 6 is not substantially disturbed. As a result, that portion of pressure sensitive adhesive layer 12 which lies on opposite sides of the line of severance immediately tends to come together again and thereby holds unit 2 in its same relative position. This adhesion of the pressure sensitive adhesive on opposite sides of the line of severance is readily noticeable when the user attempts to remove unit 2. While said adhesion does not substantially interfere with removal of unit 2 by hand pressure, nevertheless, it does hold the unit in place in sheet 6. Because of this adhesion, it is possible to die cut substantially the entire outside perimeter of each oil change reminder unit.

In Figure 6 a modified form of the invention is illustrated in which the oil change reminder units 18 are formed in sheet 20 by curved complementary die cuts 22 and parallel straight die cuts 24 and 26. As illustrated in the drawing, curved complementary die cuts 22 preferably have the same radius of curvature with the centers of the radii of curvature falling on the same straight line. In some instances it may be desirable to provide small uncut marginal portions 28 and 30. This embodiment of the invention has the advantage of providing a plurality of oil change reminder units substantially without waste.

In order to use the oil change reminder units previously described it is only necessary to remove each unit 2 from sheet 6 by pressing it outwardly as shown in Figure 2. Backing 16 prevents the pressure sensitive adhesive 12 from adhering to the fingers and thus permits ready handling of each unit. While the unit is in the book or prior to removal therefrom, the desired mileage can be noted on the front surface thereof 14, either by writing or printing. As the unit is removed from the book in the manner described with reference to Figure 2, the pressure sensitive adhesive which forms an intermediate layer between the printable surface and the strippable backing readily yields along cut lines to permit removal, and any uncut portions 10 are so small that they may be readily separated without tearing the unit as a whole. When a unit 2 has thus been removed, it is ready for application to the windshield, rear view mirror or dashboard of an automobile and this is accomplished simply by stripping away backing material 16 and then pressing pressure sensitive adhesive 12 against the plane surface to which it is to be attached.

In practicing the invention, base material 14 may be made of any flexible material, one surface of which can be written or printed upon, preferably a cellulosic or fibrous material like paper or a rubber impregnated fibrous material known by the trade name of "Lexide." The

pressure sensitive adhesive may be any suitable type of pressure sensitive adhesive made of rubber or latex, with or without resinous ingredients and other customary materials.

According to my invention it is preferable that the adhesive be substantially free from resins and other materials which tend to cause a tacky or gummy deposit. The character and nature of this pressure sensitive adhesive is such that the oil change reminder units may be applied, detached and applied again without destruction.

My invention overcomes many of the difficulties heretofore experienced by automobile owners and operators of gasoline filling stations in keeping a record properly for oil change and greasing. My oil change reminder units are provided in a convenient and accessible form and are easily kept without becoming soiled. Moreover, they are easily detached from their assembled form and are readily attached to any convenient part of the automobile in accordance with the owner's desires. Additionally, once they have been attached to the dashboard of an automobile, or other part thereof, in the manner previously described, they cannot be detached by accident. On the other hand, when the owner or user does wish to detach one of said units, he can readily do so without marring or otherwise damaging his car. Furthermore, if he likes, he can readily detach one of said units, change the mileage thereon, and reattach it in the usual manner with no inconvenience and without disrupting or otherwise injuring the unit.

Having thus described the invention, what I claim as new and desire to secure by Letters Patent of the United States is:

1. A sheet of oil change reminder units comprising a flexible base material having on one side a printable surface and on the other side a pressure sensitive adhesive, and a strippable covering over said pressure sensitive adhesive, said pressure sensitive adhesive extending throughout substantially the entire area of said sheet, said sheet being die cut through its entire thickness except for comparatively small uncut portions to define oil change reminder units, the pressure sensitive adhesive at the cut edge of each unit serving to reclose the die cut slit and providing in conjunction with the uncut portions firm support for maintaining the oil change reminder unit in assembled relationship with the sheet until actually removed therefrom.

2. A sheet of oil change reminder units comprising a flexible base material having on one side a printable surface and on the other side a pressure sensitive adhesive, and a strippable covering over said pressure sensitive adhesive, said sheet being die cut through its entire thickness except for comparatively small uncut portions to define oil change reminder units, the pressure sensitive adhesive covering the marginal cut surface of each unit and the surface of the sheet adjacent to each unit, the pressure sensitive adhesive at the cut edge of each unit serving to reclose the die cut slit and providing in conjunction with the uncut portions firm support for maintaining the oil change reminder units in assembled relationship with the sheet until actually removed therefrom.

LAWRENCE J. BURKE.



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# United States Patent [19]

**Hoffmann**

[11] **Patent Number:** 5,874,142  
 [45] **Date of Patent:** Feb. 23, 1999

[54] **LINERLESS ADHESIVE-EQUIPPED  
CARRIER ASSEMBLY AND METHOD**

[75] **Inventor:** Donald J. Hoffmann, Elmhurst, Ill.

[73] **Assignee:** Wallace Computer Services, Inc.,  
Lisle, Ill.

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*Primary Examiner*—Nasser Ahmad

*Attorney, Agent, or Firm*—Lee, Mann, Smith, McWilliams,  
Sweeney & Ohlson

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40/638; 281/2; 281/5; 283/71; 283/74; 283/81;  
283/101; 428/41.8; 428/42.1; 428/43; 428/138;  
428/192; 428/906

[58] **Field of Search** ..... 428/40.1, 41.8,  
428/42.1, 43, 906, 192, 138, 354, 352;  
283/81, 71, 101, 74; 40/630, 638, 594;  
206/390, 820; 281/2, 5

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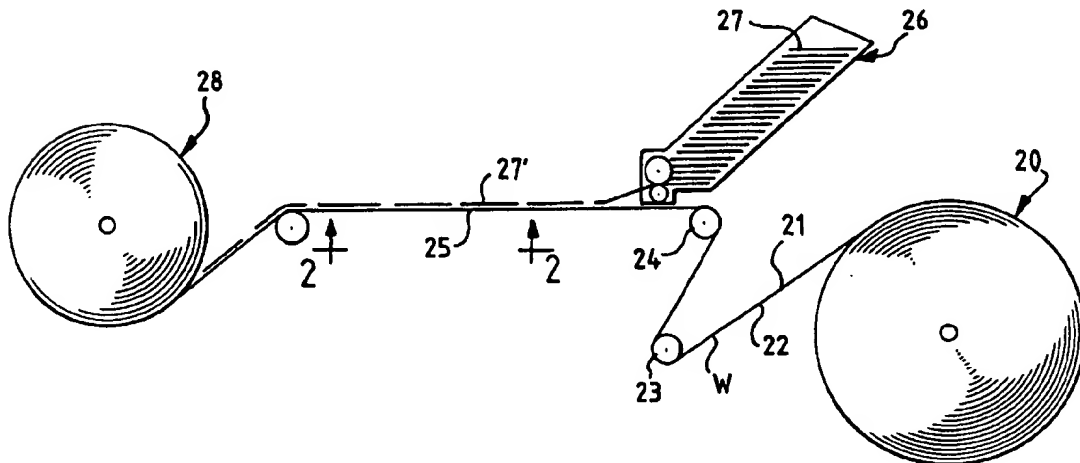
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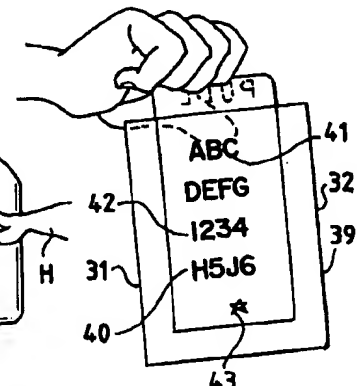
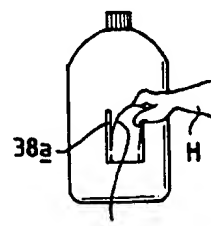
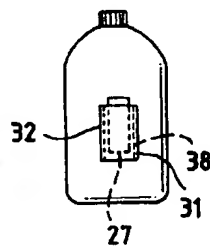
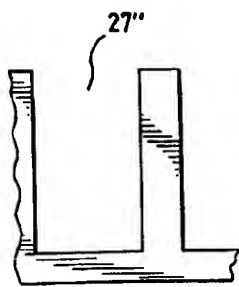
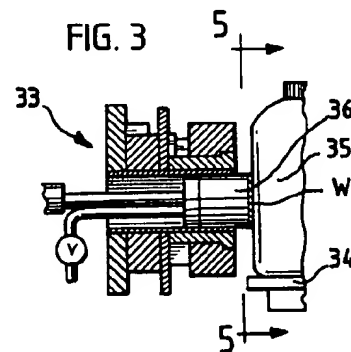
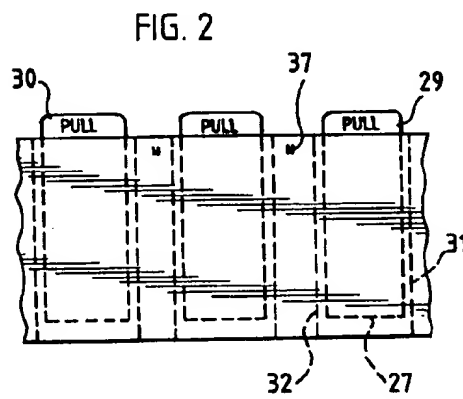
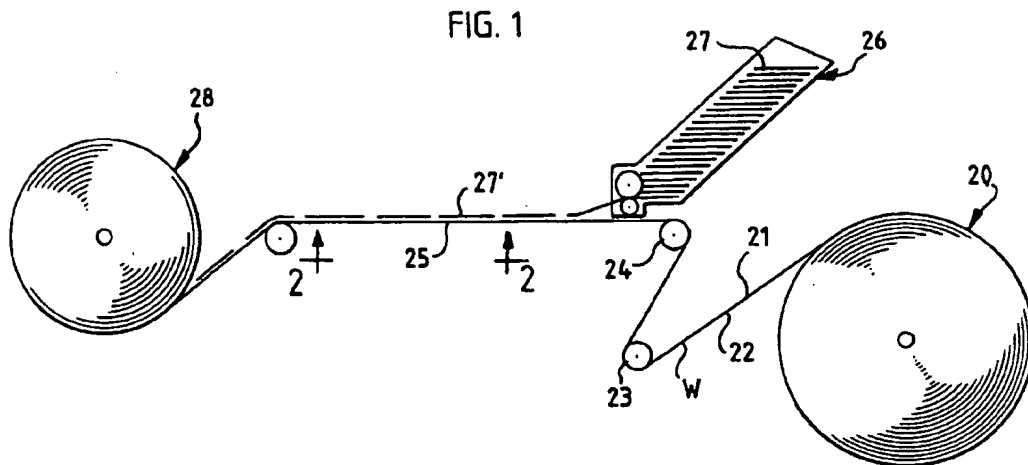
[57] **ABSTRACT**

A carrier assembly including a label, coupon, booklet or the like for application to a container or other receiver which has an elongated flexible carrier web having opposed faces, one face being equipped with adhesive, the other face being equipped with release material, and a plurality of longitudinally spaced web-units attached to the one face, the carrier web being convolutely wound with the space between the web-units exposing said adhesive.

Also disclosed is the method of preparing and the method of using wherein the wound roll is unwound and one web-units sequentially dispensed as by severing a segment from the carrier web and applying the same to a receiver.

21 Claims, 3 Drawing Sheets





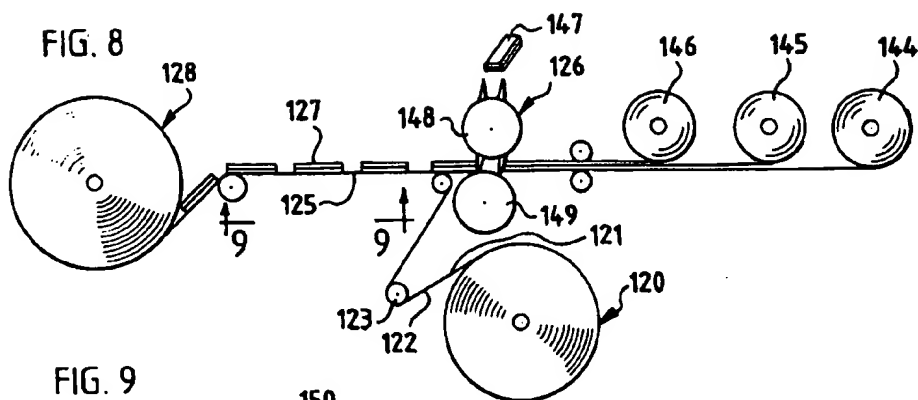


FIG. 9

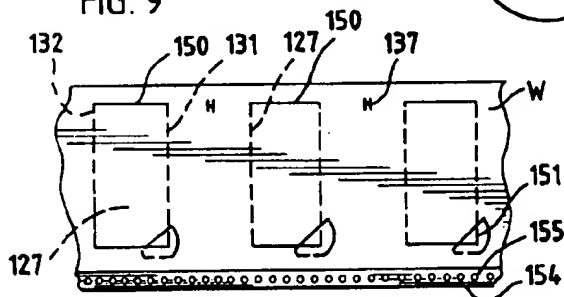


FIG. 11

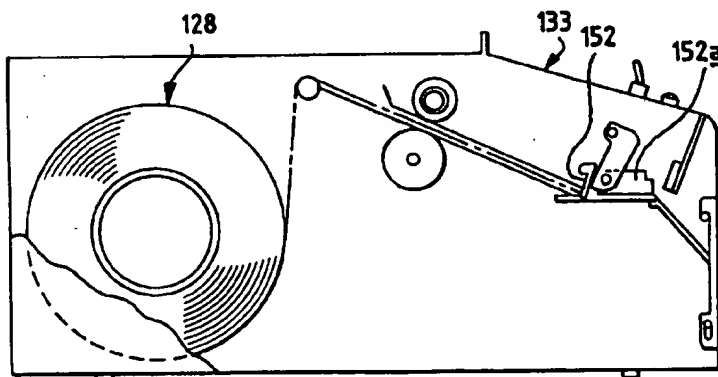
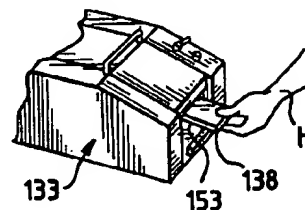


FIG. 10

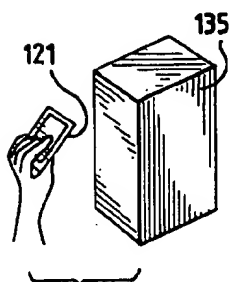
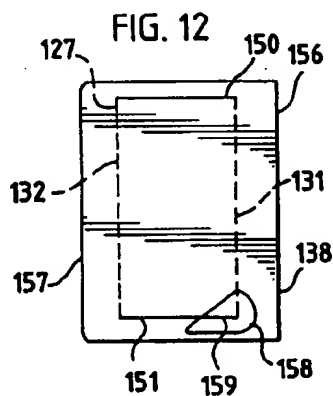


FIG. 13

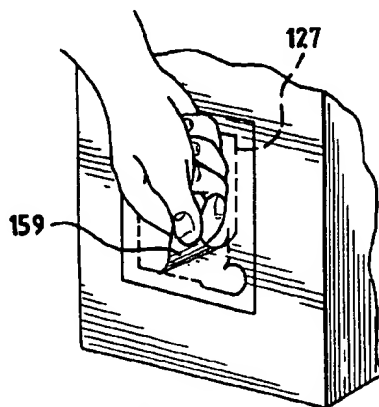


FIG. 14

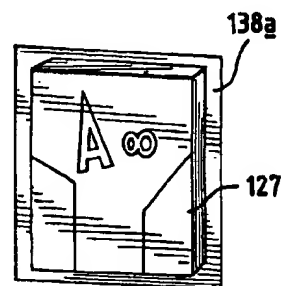
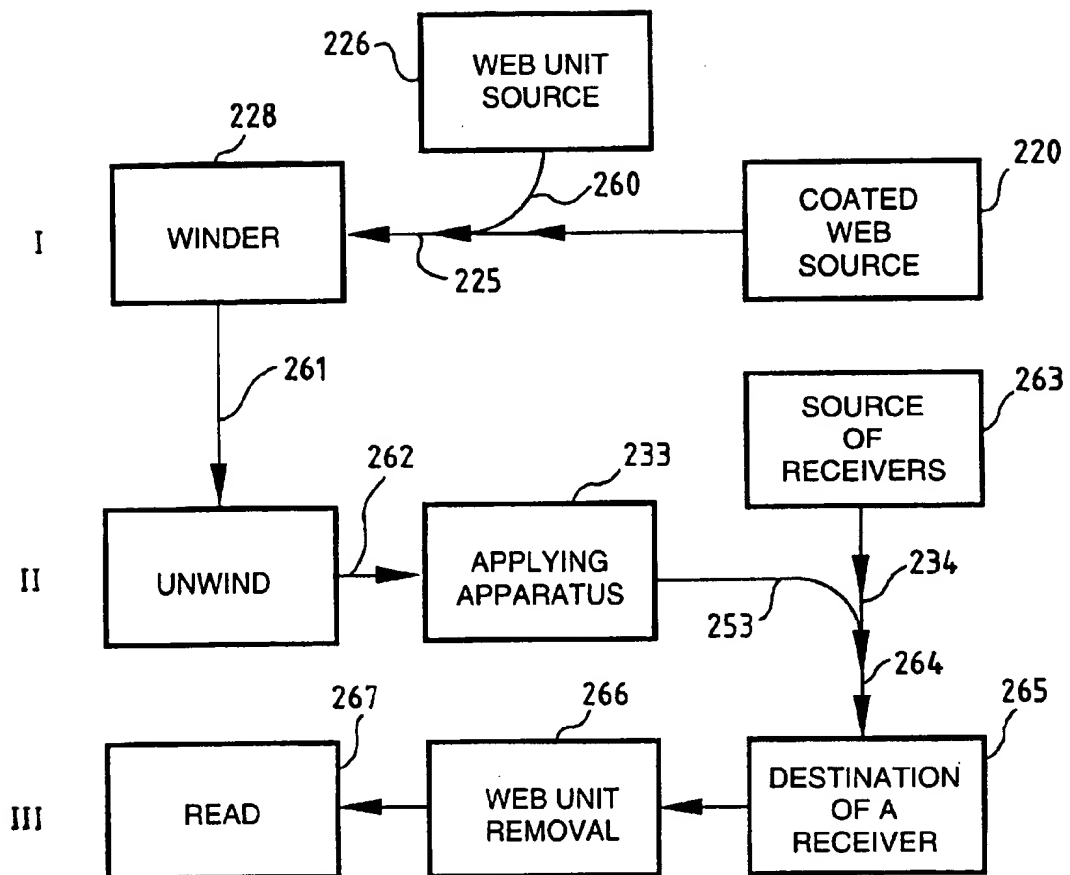


FIG. 15

FIG. 16



# LINERLESS ADHESIVE-EQUIPPED CARRIER ASSEMBLY AND METHOD

## BACKGROUND AND SUMMARY OF INVENTION

This invention relates to linerless adhesive-equipped carrier assembly and method and, more particularly, to a product and method which is especially adapted for providing information web-units such as coupons, booklets, and the like as label assemblies for various products.

The invention includes the use of a roll of linerless label stock consisting of paper or clear poly film that has been produced by using conventional manufacturing processes, e.g., a label press equipped with print towers, silicone coater and an adhesive applicator. The linerless label stock may or may not be slit, perforated or punched—as may be useful in assisting of the removal of the booklet, coupon, card, etc. This roll of linerless paper/film may also have aligning holes or preprinted registration marks for achieving register.

The linerless carrier roll is advantageously mounted on an unwind stand of a mailer type collator and webbed, i.e., advanced, with the adhesive side up and with the web passing underneath a diecut tipping station, for example. Single or multiple plies from the mailer collator are webbed through the diecutter and tipped onto the adhesive side of the linerless label. In lieu of a diecutter/chipout unit, a label applicator or tipper could also tip inserts or web units onto the linerless label. After the inserts are tipped in register on the moving linerless paper/film, the web is wound into a roll in longitudinally spaced locations. The plies/inserts that are tipped sequentially in register onto the linerless ply can be, among other things, single I.D. cards, coupons, booklets, postcards, business reply envelopes, etc.

An advantage of using a collator is that the various plies can be different paper weights and colors. They can also be plowed before going through the die cut station.

After the completion of the web-unit-equipped linerless ply, it is wound to form a linerless adhesive-equipped carrier assembly in convolutely wound form with adhesive being exposed between adjacent web-units. This permits direct application of the web-unit-equipped segment of the carrier directly to a receiving surface, such as a container—and without the need for removing a release liner at the time of application. Exemplary of the prior art featuring folded inserts on a carrier ply wherein a release liner must be removed before application to a receiving surface is U.S. Pat. No. 5,262,214 and European Patent Application publication 192 444.

According to the invention, the roll resulting from the convolute winding normally is relocated for advantageous use in conjunction with a stream of products. The products may vary widely from milk cartons to shipping boxes to bottles and containers of all sorts—in other words, anything whether filled or not which can make use of a removable information-containing web-unit. As the containers to be equipped with the web-units are advanced, the linerless carrier is likewise advanced and selectively severed to provide transferrable items for application to the stream of containers.

Then, when the container or other item bearing the web-unit reaches its final destination, the recipient is easily and readily able to remove the web-unit from the container for the information it is intended to convey.

Other objects and advantages of the invention may be seen in the details of construction and operation set forth in the ensuing specification.

## BRIEF DESCRIPTION OF DRAWING

The invention is described in conjunction with the accompanying drawing, in which

FIG. 1 is a schematic side elevation of a labeling assembly useful in the practice of the invention;

FIG. 2 is a bottom plan view of the carrier web portion seen in the central part of FIG. 1;

FIG. 3 is a fragmentary sectional view of apparatus for selectively severing portions of the web of FIG. 2 and applying the same to a container;

FIG. 4 is a fragmentary plan view of the remnant or “ladder” of the carrier web of FIG. 2 after it has passed through the removal operation provided by the apparatus of FIG. 3;

FIG. 5 is a side elevational view of a container equipped with the medium-equipped carrier of the invention and as would be seen along the sight line 5—5 of FIG. 3;

FIG. 6 is a view similar to FIG. 5 but showing the web-unit-equipped carrier web in the process of being removed from the container;

FIG. 7 is an enlarged front view of the “removed” web-unit-equipped carrier with the carrier being reversed from its showings in FIGS. 5 and 6;

FIG. 8 is a view similar to FIG. 1 in that it is a schematic representation of a processing line for webs but which is especially adapted to apply multiple plies or sheets of each web-unit to the carrier web and thereby provide a series of booklets or similar thicker web-units;

FIG. 9 is a bottom plan view of the carrier web equipped with longitudinally spaced stacks of web-unit such as would be seen along the sight line 9—9 of FIG. 8;

FIG. 10 is a schematic representation of apparatus employed for intermittently providing linerless adhesive-equipped carrier assemblies—such as labels or booklets and which can be used to advantage in the practice of the invention;

FIG. 11 is a fragmentary perspective view of the apparatus of FIG. 10 shown in the process of delivering a carrier segment adhesively-equipped with a web-unit;

FIG. 12 is a front elevational view of the carrier segment which has issued from the apparatus of FIG. 11;

FIG. 13 is a fragmentary perspective view showing the web-unit-equipped carrier segment of FIG. 12 in the process of being applied to a container;

FIG. 14 is a view similar to FIG. 13 but showing the web-unit in the process of being removed from the container;

FIG. 15 is a rear elevational view of the web-unit after it was removed from the container as seen in FIG. 14; and

FIG. 16 is a schematic diagram of the process of making the web-unit-equipped carrier web at a first site, the application of web segments to a series of receivers at a second site and the receipt, removal and reading or otherwise sensing of the information on this web-unit at a third site.

## DETAILED DESCRIPTION

With reference first to FIG. 1, the numeral 20 designates generally a parent roll of “linerless label” material. This term has been fairly widely used to refer to coated web material useful as a label wherein one face is equipped with adhesive and the other face with a release material, usually a silicone composition. One advantageous adhesive is the pressure sensitive type (hot melt or water soluble) but other useful

adhesives may be dry gum or heat activated glue. The booklets, coupons, cards, etc. are then glued at various points to the non-pressure sensitive adhesive.

In the practice of the invention, the roll 20 is unwound to provide a web W which, in the illustration given, has the adhesive side positioned uppermost as at 21 and the silicone coated side positioned downwardly as at 22. For brevity hereafter, I use the term "silicone" for the release material but it will be understood that a variety of wax-like materials may be used to provide the release quality.

In some instances, it may be necessary to change the direction of advance of the web W and therefore it passes around an idler roller 23 which is advantageously coated with a release material such as the previously mentioned silicone product.

To provide a run of web W especially arranged to receive web-units, the web W again changes direction by passing around a second idler roller 24 and thereafter has a generally horizontally extending run 25. Positioned at the right hand or beginning end of the horizontal run 25 is an insert feeder generally designated 26. This is in the nature of a magazine containing a stack of web-units 27 which are dispensed serially as at 27' on the horizontal run 25 in FIG. 1. These then are rewound into a convolutely wound roll generally designated 28 for subsequent processing.

As indicated in the drawing description, FIG. 2 is a bottom plan view of the web W equipped with the web-units 27. Each web-unit is spaced longitudinally from its neighbors and advantageously equally spaced as shown. Additionally, each unit 27 has a projecting tab as at 29 (see the right hand end of FIG. 2). This may be equipped with instructional indicia such as the word PULL as designated by the numeral 30.

In this particular instance, I find it advantageous to provide the web W with transverse perforations 31 and 32 flanking each web-unit 27. Again, these can be equally spaced on either side of the web-unit 27 and the provision of these perforations can be advantageously provided prior to the addition of the web-units 27. For example, the web W may be cross perforated even before being equipped with adhesive and silicone or during the application of these surfaces or even during later unwinding after the web has been wound into the parent roll 20.

After the web W has been unwound from the rewind roll 28 to provide the web seen in FIG. 2, it is advanced past a label removal/applying apparatus generally designated 33. Greater details of the particular unit illustrated may be seen in U.S. Pat. No. 5,431,763 which shows a conveyor as at 34 for advancing a series of containers as at 35 past the severing/applying apparatus 33.

The apparatus of the '763 patent also provides means for advancing a web W through the device 33 parallel to the run of conveyor 34. A plunger 36 is operative to sever a web segment from the web W and through the use of vacuum V apply it to a side of the container 35. This may be triggered by a sensor (not shown) which is responsive to registration marks 37—see FIG. 2. Resulting from the operation of the apparatus 33 in the container 35 of FIG. 5 which is now equipped with a web-unit 27 and a continuous strip of waste material as seen in FIG. 4. This can be rewound for disposal as shown in the '763 and '214 patents, previously mentioned.

More particularly, the apparatus 33 may sever a web segment 38—see FIG. 5—which is slightly broader than the web-unit 27. In any event, this results in the gap or chipped out area as at 27" in FIG. 4. In FIG. 5, it will be noted that

the web segment 38 is also slightly broader than the distance between the flanking cross perforation lines 31 and 32.

Then, when the web-unit is torn away by the hand H—see FIG. 6—it will be seen that a minor perimetric portion 38a remains on the container 35. This is the perimeter portion outboard of the perforation lines 31, 32. And these perforation lines may themselves be outboard of the leading and trailing edges (in the sense of the FIG. 2 showing) of the web-unit 27. Or, in other instances, the perforation lines may be co-linear with the leading and trailing edges of the web-unit 27. And, for that matter, in some instances, the perforation lines 31, 32 may be omitted entirely. This could be the case where the web W is fairly easily ruptured to permit removal of the web-unit 27. Even further, the segment 38 may be coextensive with the web unit 27—especially where the adhesive employed is rupturable. Depending on the product that the web-unit, i.e., label, is applied to, a greater surface area of adhesive may be employed to adhere to the product.

Returning to the illustration given in FIGS. 1-7, the result of the removal step pictured in FIG. 6 is a slightly smaller web segment 39 which carries the web-unit 27 and therefore the informational message 40 as seen in FIG. 7. This is seen to include variously alpha, indicia 41, numeric indicia 42 and pictorial indicia 43. It will be appreciated that other indicia may be printed or otherwise provided on the web units 27.

Variations may be made in the details of construction and operation of the product, the apparatus and the method employed in the practice of the invention. For that purpose, I set down details of a second embodiment and it will be appreciated that certain of the elements and steps of the second embodiment may be substituted in the first embodiment and vice versa.

#### Alternative Embodiment

Here, reference is made to FIGS. 8-15 and so that there is clear understanding of the differences, yet similarities to the elements, steps, etc. of FIGS. 1-7, I employ like numerals for like elements but with the addition of 100.

Therefore, in FIG. 8, the numeral 120 represents a roll for unwinding of linerless label material which again passes over a silicone coated idler roller 123 and a second idler roller 124. As before, the adhesive side 121 is facing upwardly when first unwound while the silicone coated side initially faces downwardly and is designated by the numeral 122. Again, as before, there is a straight run of web W as at 125. Here, I do not change the designation of the web W because what I use most advantageously is generic and therefore the web is useful in either embodiment or such other embodiments as may be made up of elements from part of one embodiment and part of a second embodiment.

In FIG. 8 at the right hand side thereof, it will be noted that there are three parent rolls 144, 145 and 146. Each of these provides a web which is advanced by pull rolls 147. The webs from the parent rolls 144-146 are advantageously held together by glue lines applied at the collator (not shown). These glue lines can be applied at the sides or along the top of the webs.

Thereafter the superposed webs from the parent rolls 144-146 pass through a chip-out unit generally designated 126 where a "chip" of the three webs as at 147 is removed by the coaction of the knife roll 148 and the anvil roll 149. Thereafter, the superposed web elements 127 are deposited on the web W which serves as a carrier and adhesively secures the lowest component of the web-unit, i.e., the part



from the parent roll 144. The web-units 127 maintain their various components in superposed, stacked relationship by virtue of being pressed by the pull rolls 147a to unite the webs by the above-mentioned glue lines. They are then conveyed by the web W to become the rewind roll generally designated 128.

Reference to FIG. 9 reveals a length of web material very much as was previously seen in FIG. 2 and wherein the web-units 127 are seen in dashed line indicating that the view in FIG. 9 is from the bottom of FIG. 8 and therefore the edges of the web-units 127 are "hidden".

A refinement which I optionally employ in connection with the embodiment of FIGS. 8-15 is to provide the web W with a series of longitudinally extending slits as at 150 and 151 for each web-unit 127. Also, I have a further punch-out to provide a finger access opening as at 146 for each one of the web units 127. Again, as before, I find it advantageous to provide flanking perforation lines as at 131 and 132—see the extreme left unit of FIG. 9. Here, the perforation lines are aligned with the leading and trailing edges of the web-unit.

The web W of FIG. 9 can be used in conjunction with the severing/applying unit 33 of FIG. 3 which then would be synchronized with the advance of the conveyor 34. However, in the showing of FIGS. 8-15, I use an alternative severing means in the form of a unit generally designated 133 in FIGS. 10 and 11. Additional details of the unit 133 can be seen in the co-owned application of Szczepanec et al, Ser. No. 08/474,709, filed Jun. 26, 1995. The unit 133 has provision for unwinding the rewound roll 128 and directing it through a knife means 152 to issue a web segment 138 from an outlet 153—see FIG. 11. This is with the adhesive side 121 of the web segment 138 facing upwardly. The knife means 152 may include a sensor 152a which is triggered by registration marks as at 137. The margin may be trimmed to provide the construction of FIG. 12.

The unit 133 operates intermittently, i.e., upon demand, and a hand H is seen removing the segment 138. Again, the segment 138 removed has with it a portion of the web W as can be appreciated from FIG. 12 where again we see the perforation lines 131, 132 inboard of the leading and trailing edges 156, 157 edges of the segment 138. Also seen are the longitudinally extending slits 150 and 151 which intersect the lines of perforations 131, 132. For further convenience in removal, I provide a finger opening 158 which provides convenient access to the web unit 127 for removal as seen in FIG. 14. The segment 138, with its adhesive face 121 facing a receiver 135, is applied in the fashion indicated at FIG. 13.

Then in FIG. 14, the removal of the web-unit 127 is illustrated which is initiated by grasping the unit near the corner 159 (compare FIGS. 12 and 14) and rolling the same upward for tearing the web W along the perforation lines 131 and 132.

Alternatively, the slits and perforation lines may be omitted—resulting in the structure seen in FIG. 15 where the web-unit 127 of multi-ply construction is equipped with alpha/numeric indicia and still may retain a small perimetric portion of the web W.

#### Summary of Operation

Turning now to FIG. 16, I present a schematic flow diagram which illustrates the use of the invention in three stages. In stage 1, there is provided a coated web source 220. The coated web has opposed faces one of which is equipped with pressure sensitive or other adhesive and the other with silicone or other release material. This normally-designated

"linerless label" material may be either developed at the Site I or provided elsewhere. In the same fashion, the coated web may be equipped with registration means, one for each location where a web unit 27, 127 is to be applied. Such registration means may take the form of registration marks 37, 137 or holes such as the line holes 155 in the margin 154.

The coated web normally is provided in convolutely wound form and is unwound for advancing along a path 225 (still referring to FIG. 16).

Intersecting the path 225 is a path 260 which leads from a web unit source 226. The web-units are advantageously equipped with informational indicia of the type depicted at 40-43 in FIG. 7 and further are configured to provide a member selected from the class consisting of a booklet, a coupon, a credit card, and I.D. card, a postcard, and a reply envelope such as a business reply envelope.

The web-units emanating from the web-unit source 226 and advancing along the path 260 may be applied to the web W advancing along the path 225 by a variety of operations such as tipping, blowing, diecutting to chip the web-unit out of a continuous stream and other forms of application. Normally, the web-units are applied in equally longitudinally spaced positions on the web face containing the pressure sensitive adhesive. Thereafter, the web-unit-equipped web is rewound into a convolutely wound roll as at 228.

The convolutely wound web as at 28 in FIG. 1 or 128 in FIG. 8 is normally cartoned for transfer to a second Site II—this being indicated by the vertical arrow designated 261.

The first Site I normally will be the manufacturing plant of a business form producer or like operating entity. In contrast, the second Site II will normally be that of a product-producing plant. As indicated previously, the ultimate web-units may be applied to food receivers such as milk cartons—in which case, the second Site II would be a dairy.

At Site II, the convolutely wound roll 28, 128 is unwound and advanced along a path 262 to applying apparatus 233. A variety of applicators can be employed but in each case means are provided for transversely severing the web W into discrete segments such as 38, 138. Illustrative of some of the variations of applying apparatus are the apparatus 33 of FIG. 3 which embodies a plunger to remove a portion of the web, leaving a ladder-like remnant to be disposed of, or a completely severing apparatus 133 as seen in FIG. 10 and 11. In the case of the plunger equipped dispenser of FIG. 3, the web unit is severed as a segment 38. In the instance of a knife-equipped dispenser seen in FIGS. 10 and 11, the web W is completely severed between web-units 27, 127 and these segments are issued from the apparatus for manual manipulation in the illustrated embodiment.

In the two embodiments illustrated, perforation lines as at 31, 32 and 131, 132 are illustrated. These, along with the slits 150, 151 are advantageously applied to the web W at the source 220. The perforation lines—as indicated previously—may be applied either co-linearly with the leading and trailing edges of the web-units as in FIG. 12, spaced from the edges as in FIG. 2 or omitted—as where the web W can be readily replaced or totally removed from the receiver.

The applying apparatus 233 operates in conjunction with a source of receivers 263. Where the receivers are food cartons as at 35, 135, they are provided along a conveyor which defines a path 234 and which intersects the output 253 of the apparatus 233. Thereafter, the now-web segment-

equipped receivers are transferred to Site III—this being indicated by the arrow designated 264.

The third site site III is a destination 265 which may be the household receiving the milk carton or a variety of other sites where the segment 38, 138 may be removed as shown in FIGS. 6 and/or 14. This action is designated by the block reading web-unit removal and is designated 266.

Thereafter, the information contained on the removed web-unit is read as at 267.

While in the foregoing specification a detailed description of an embodiment of the invention has been set down for the purpose of illustration, many variations in the details hereinafter may be made by those skilled in the art without departing from the spirit and scope of the invention.

I claim:

1. A linerless carrier assembly comprising an elongated flexible carrier web having opposed faces, one face being substantially completely covered with adhesive, the other face being substantially completely covered with a waxy release material, and a plurality of longitudinally spaced apart web-units each having first and second faces, said web-unit first face being adhesively attached to said carrier web one face and with said web unit second face being free of adhesive, the space between said web-units exposing said adhesive, said carrier web being convolutedly wound, each of said web-units is provided with informational indicia.

2. The product of claim 1 in which each of said web-units is a booklet.

3. The product of claim 1 in which each of said web-units is a coupon.

4. The product of claim 1 in which each of said web-units is a credit card.

5. The product of claim 1 in which each of said web-units is an I.D. card.

6. The product of claim 1 in which each of said web-units is a postcard.

7. The product of claim 1 in which each of said web-units is a business reply envelope.

8. The product of claim 1 in which said informational indicia comprises at least one of alphabetic characters, numeric characters and pictorial indicia.

9. The product of claim 1 in which informational indicia is imprinted on said carrier web.

10. The product of claim 1 in which said carrier web is equipped with transversely-extending lines of perforation flanking each web-unit.

11. The product of claim 1 in which each web-unit is equipped with a tab portion projecting transversely beyond said web.

12. The product of claim 11 in which said tab portion is equipped with informational indicia.

13. The product of claim 1 in which said carrier web is equipped with registration indicia for each web-unit.

14. The product of claim 1 in which said registration indicia is a mark.

15. The product of claim 1 in which said carrier web is equipped with a margin having longitudinally spaced line holes.

16. The product of claim 1 in which said carrier web is equipped with longitudinally-extending slits flanking each web unit.

17. The product of claim 16 in which said carrier web is equipped with a finger-accessible opening adjacent one of said slits.

18. The product of claim 17 in which said carrier web is equipped with transversely extending lines of perforation generally aligned with the forward and trailing edges of each web-unit and intersecting said slits whereby finger insertion into said opening permits removal of a web patch having generally the extent of said web-units.

19. The product of claim 18 in which said web-unit is equipped with informational indicia and is a member selected from the class consisting of a booklet, a coupon, a credit card, an I.D. card, a postcard, and a reply envelope.

20. A linerless carrier assembly comprising an elongated flexible web having opposed faces, one face being substantially completely covered with adhesive, the other face being substantially completely covered with a waxy release material, and a plurality of longitudinally spaced apart web-units each having first and second faces, said web unit first face being adhesively attached to said carrier web one face and with said web unit second face being free of adhesive, the space between said web-units exposing said adhesive, said web being convolutedly wound, each said web-unit when removed from said flexible web having a first surface equipped with said flexible web with the release material thereof facing outwardly of said web-unit and a second surface free of adhesive to facilitate manual handling of the removed web unit, each of said web-units is provided with informational indicia.

21. The product of claim 20 in which said web is equipped with transversely-extending lines of perforation flanking each web-unit.

\* \* \* \* \*

- [54] **DISPLAY STICKER FOR A VEHICULAR WINDOW**
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- [21] Appl. No.: 293,978
- [22] Filed: Jan. 6, 1989
- [51] Int. Cl.<sup>3</sup> ..... B42D 15/00
- [52] U.S. Cl. .... 283/81; 283/101;  
283/108; 283/100; 283/98
- [58] Field of Search ..... 283/81, 101, 94, 98,  
283/99, 100, 103, 105, 106, 108; 156/249, 289;  
40/594, 593, 643, 644

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[57] **ABSTRACT**

Removal of a window display sticker without partial or entire mutilation or distortion is facilitated in a business form display including a first sheet 30 of label stock having one side 32 coated with pressure sensitive adhesive 34, a second sheet 36 of release liner material having a size and shape corresponding to the first sheet 30 and with a coated surface 38 removably adhered to the adhesive 34 and an opposed surface 42 for receiving variable information to be displayed. Cuts 58, 60, 62, 64 in the sheet 36 near at least two opposed edges 50, 52, 54, 56 are provided so that parts of the sheet 36 between the opposed edges 50, 52, 54, 56 may be removed from adhesion to the first sheet 30 to expose adhesive 34 at at least two opposed edges 50, 52, 54, 56 in flanking relation to the surface 42 and any variable information that may be received thereon.

7 Claims, 3 Drawing Sheets

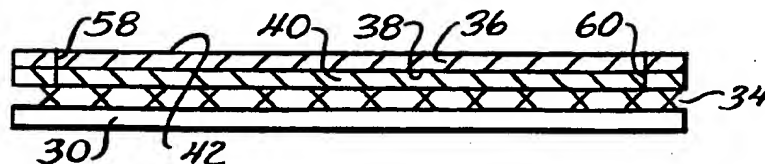
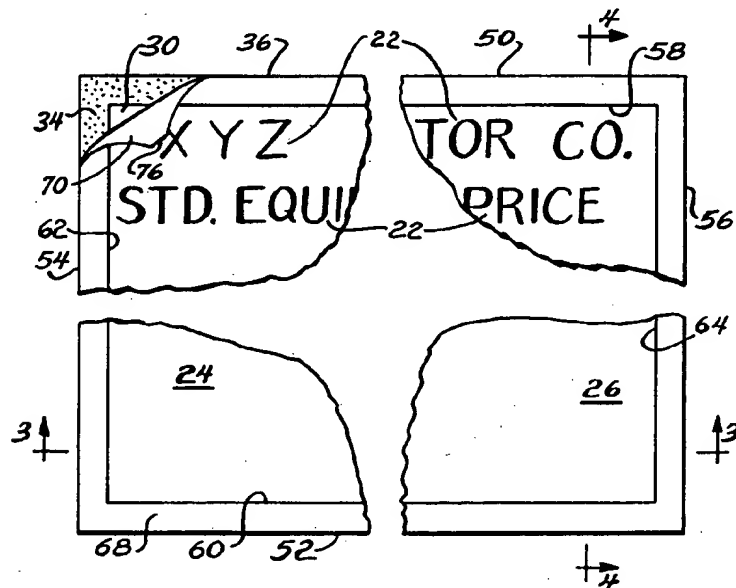


FIG. 1

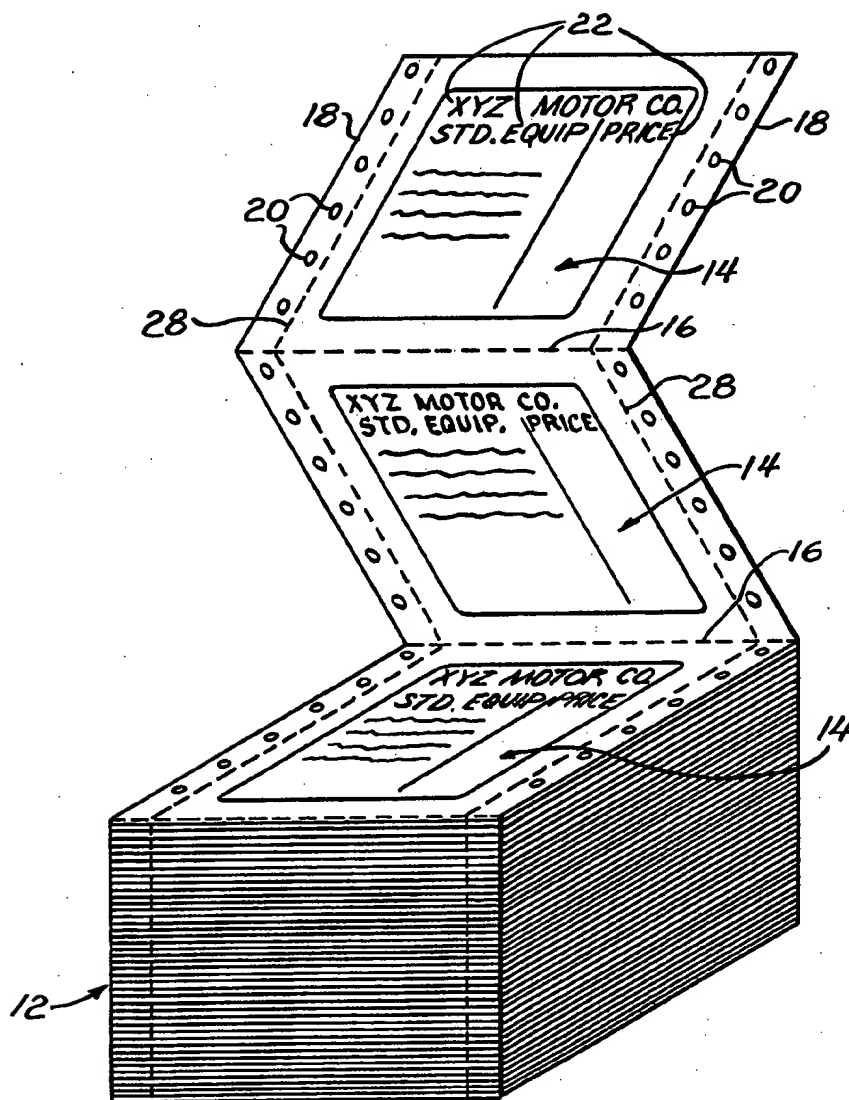


FIG. 2

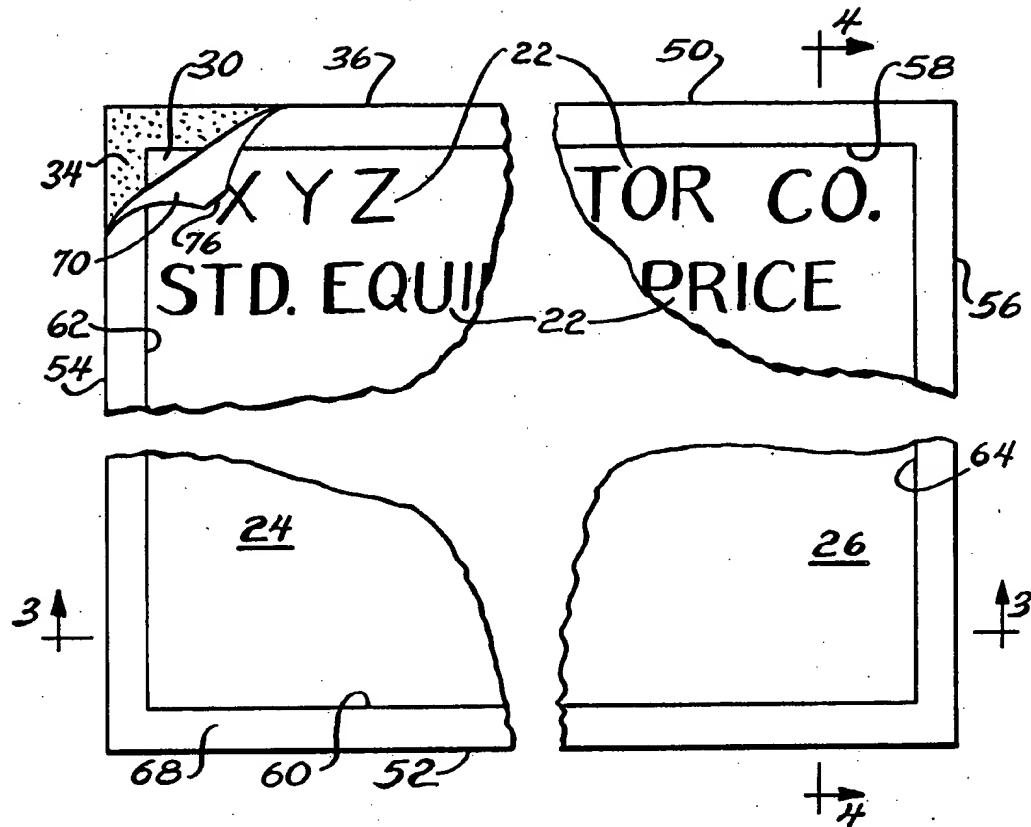


FIG. 3

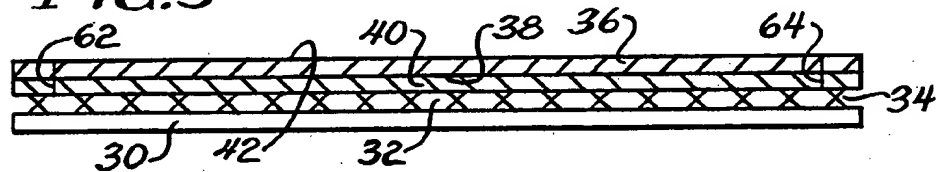


FIG. 4

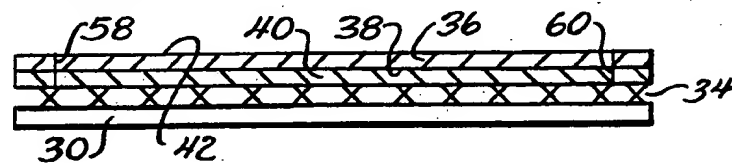


FIG. 5

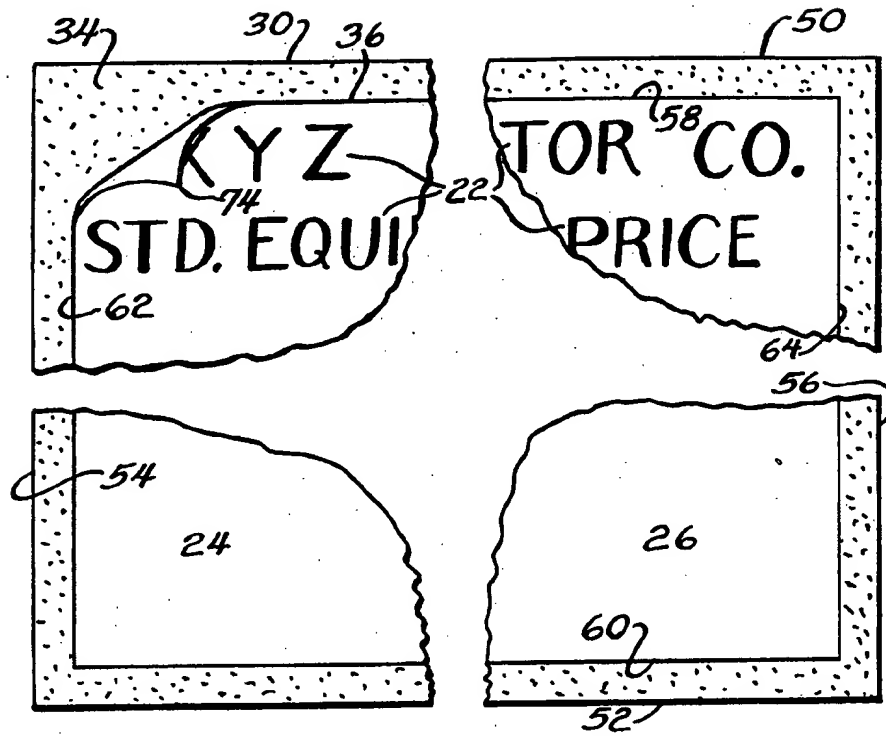


FIG. 6

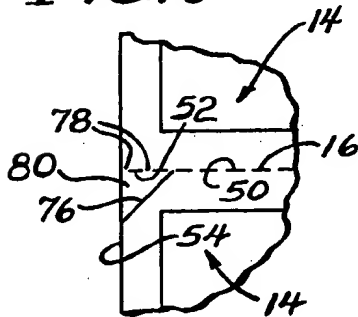
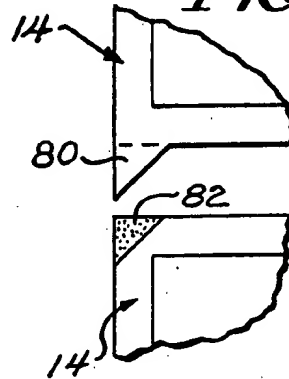


FIG. 7



# DISPLAY STICKER FOR A VEHICULAR WINDOW

## FIELD OF THE INVENTION

This invention relates to business forms, and more specifically, to business forms that may be utilized for display purposes as, for example, displaying variable information through a transparent object.

## BACKGROUND OF THE INVENTION

There are many occasions in the commercial world for displaying information through transparent objects, most notably windows. The types of display may range from posters advertising the sale of various items at grocery stores to equipment and price listings on the so-called "stickers" employed in the sale of new cars and the like.

The case of the latter presents an interesting situation in that, with a high degree of frequency, the purchaser of a new vehicle would prefer to retain the sticker as a record of both the standard and optional equipment on the vehicle and perhaps for other reasons as well. Commonly, however, the variable information is printed on a paper form which is then adhered as by moistenable adhesive to the interior of a window of the vehicle. After purchase of the vehicle, the sticker is removed, frequently by the automobile dealer who will typically not be particularly concerned about the preservation of the sticker. In removing the sticker, razor blades may be used and they tend to mutilate the sticker so that it can no longer serve as a record of the items stated thereon. Alternatively or additively, the stickers are soaked with water. If the soaking is thorough, the sticker may be removed intact but because of the soaking, the sticker will warp and wrinkle and not present a good appearance as a preservable record.

And if the moistening is not sufficient or nonuniform, the sticker may rip during the removal process, again hindering its ability to serve as a good record of the matters stated thereon.

The present invention is directed to overcoming one or more of the above problems.

## SUMMARY OF THE INVENTION

It is the principal object of the invention to provide a new and improved business form that may be utilized for the display of variable information through a transparent object. It is also an object of the invention to provide a new and improved method of displaying variable information through a transparent object. Both the method and the business form are intended to provide a convenient means of displaying variable information and yet one wherein the display media may be readily and easily removed from the display position without partial or entire mutilation, destruction, deformation, etc.

According to one aspect of the invention, there is provided a business form for use as a removable window sticker wherein a variable information receiving section may be adhered to a window and then easily removed therefrom without carrying residual adhesive and without being partially or wholly destroyed, mutilated, etc. The business form includes a first sheet of label stock or the like having one side coated with pressure sensitive adhesive. A second sheet of release liner material having a size and shape corresponding to the first sheet is provided and includes a coated surface removably adhered to the adhesive of the first sheet and

an opposed surface remote from the adhesive for receiving variable information to be displayed through a window or the like. Cuts are located in the second sheet near at least two opposed edges thereof so that parts of the second sheet between the opposed edges and the cuts may be removed from adhesion to the first sheet to expose adhesive at the two opposed edges in flanking relation to the opposed surface and variable information thereon. As a consequence, the form may be adhered to a window or the like by the exposed adhesive, and, when removed therefrom, the remainder of the second sheet may be peeled from the first sheet free of residual adhesive to serve as an undamaged record of the matters recorded thereon.

In a preferred embodiment, the cuts are opposed parts of a peripheral cut in the second sheet. The peripheral cut and the edges of the second sheet define a removable, peripheral frame.

In a highly preferred embodiment, the frame is a continuous, one-piece frame so that the entire frame may be removed in a single removable step.

The invention also contemplates that there be provided an exposed grasping tab on one or the other of the sheets.

In a highly preferred embodiment, there are a plurality of the business forms in end-to-end abutment and they are delineated from one another by lines of weakening to thereby define a continuous business form.

In the case of a continuous business form made according to the invention, the label stock is in the form of a first elongated web while the release liner is in the form of a second elongated web having a width on the same order as the first elongated web.

Preferably, the second web of each form length includes a slit extending from one marginal edge to an adjacent marginal edge across at least one of the removable sections to define a removal tab to facilitate removal of the one section.

The marginal edges can be defined by the lines of weakening. They may also be defined by the longitudinal edges of the webs or they may be defined by both.

According to another aspect of the invention, there is provided a method of displaying variable information through a transparent object using a pressure sensitive label having label stock coated on one side with pressure sensitive adhesive and a release liner removably adhered to the adhesive. The method comprises the steps of (a) inscribing the variable information to be displayed on the side of the release liner remote from the adhesive, (b) removing a part of the release liner not bearing variable information to be displayed from the label stock to expose adhesive on the label stock in adjacency to the remote side, and (c) fixing the label to a transparent object by placing the remote side against the transparent object and applying pressure to the label stock oppositely of the exposed adhesive and in the direction of the transparent object to cause the exposed adhesive to adhere to the transparent object.

In a highly preferred embodiment, step (b) comprises the step of removing parts of the release liner at opposed marginal edges of the label. In an even more preferred embodiment of the invention, step (b) is performed by removing a closed peripheral frame of the release liner which defines the removal part.

The invention further contemplates that steps (a), (b) and (c) be performed in that sequence.

A highly preferred embodiment of the invention includes the further steps of (d) removing the label from the transparent object after display is complete by breaking the adhesion between the exposed adhesive and the transparent object, (e) peeling the remainder of the release liner from the label stock, and (f) saving the remainder of the release liner as a record for future reference.

In a highly preferred embodiment, the transparent object is a vehicular window.

Other objects and advantages will become apparent from the following specification taken in connection with the accompanying drawings.

### DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of a continuous business form made according to the invention;

FIG. 2 is a fragmentary, enlarged plan view of one form length of a business form made according to the invention at an early stage in its processing for use;

FIG. 3 is a sectional view taken approximately along the line 3—3 in FIG. 2;

FIG. 4 is a sectional view taken approximately along the line 4—4 in FIG. 2;

FIG. 5 is a view similar to FIG. 2 but at a subsequent stage in the processing of the business form;

FIG. 6 is an enlarged, fragmentary view of part of the invention showing a removal tab when two forms in a continuous business form assembly have not been severed from one another; and

FIG. 7 is a view similar to FIG. 6 but illustrating the appearance of the components after two adjacent forms in a continuous business form have been separated from one another.

### DESCRIPTION OF THE PREFERRED EMBODIMENTS

An exemplary embodiment of a business form made according to the invention is illustrated in the drawings. With reference to FIG. 1, it is illustrated in continuous form and includes a zigzag folded stack 12 of individual form lengths generally designated 14 delineated from one another by cross lines of weakening 16. In the usual case, the cross lines of weakening 16 will be defined by lines of perforation.

When in continuous form as illustrated, frequently, both longitudinal margins 18 of the form will be provided with line holes 20 which may be utilized for feeding the form both through manufacturing equipment as well as a computer printer or the like.

Typically, one side of each form length 14 will be preprinted during the manufacturing process with fixed information 22. In FIG. 1, the fixed information consists of the legends "XYZ Motor Co", "STD Equip", and "Price". In addition, each form length 14 includes one or more areas 24 and 26 for receipt of variable information that may be printed thereupon by any suitable printer, usually a computer printer. For example, the area 24 is illustrated as being under the legend "STD Equip" and if the business form is to be utilized in the sale of new vehicles, there might follow a listing of the standard equipment on the vehicle to which the form length 14 is to be attached. Similarly, under the legend "Price", price information may be inscribed in the area 26.

Needless to say, a large variety of other columns for receipt of variable information as well as legends constituting fixed information may be utilized. For example,

there might be a column for optional equipment as well as areas that may be utilized to provide information in compliance with government regulation as, for example, EPA mileage estimates.

In the usual case, where the business form is a continuous business form as illustrated in FIG. 1, after the variable information has been inscribed on each form length 14, the longitudinal margins of the form may be trimmed along the dotted lines 28 to remove the pin feed holes 20. Individual form lengths 14 may be severed from one another by conventional bursting along the lines of weakening 16.

Referring now to FIGS. 2-4, one individual form length will be described in greater detail. It should be observed that while FIG. 1 illustrates the form as being in continuous form, it need not be so. Forms may be made in individual form lengths or as so-called unit sets in conventional fashion and then processed through printers, such as the Xerox 9700 printer, that operate on individual sheets as opposed to continuous business forms.

The individual form length 14 illustrated in FIG. 2 is made up of parts of two webs. A first web is lowermost in FIGS. 2, 3 and 4 and is designated 30. The web 30 corresponds to the conventional label stock web utilized in pressure sensitive label forms. Because according to the instant invention this web will not necessarily serve any label purpose as will be seen, it should be understood that reference to label stock is only to indicate that the web 30 occupies the same location in a pressure sensitive label as the label stock not to connote that the web 30 need be formed of paper or the like having the relatively high quality, strength or thickness of the stock conventionally utilized as label stock in pressure sensitive labels.

As can be seen best in FIGS. 3 and 4, and to a limited degree in FIG. 2, an upper surface 32 of the web 30 is coated with pressure sensitive adhesive 34 indicated by X's in FIGS. 3 and 4 and by stippling in FIG. 2.

A second web 36 of release liner material is removably adhered to the web 30 by the adhesive 32. The web 36 has a width on the same order as the web 30 and its lower surface 38 is coated with a waxy substance 40 as is conventional so as to provide a bond between the web 38 and the adhesive 34 that allows the two to be separated with the adhesive 34 remaining on the web 30. Where the form is continuous, the web 36 will normally be somewhat wider than the web 30 and only the web 36 provided with pinfeed holes 20. This prevents the pinfeed holes 20 from becoming gummed up with the adhesive 32 which could interfere with feeding.

The surface 42 of the release liner 36 that is opposite the coating 40 and remote from the adhesive 34 is adapted to receive variable information in the areas 24 and 26 as mentioned previously and further may be provided with the preprinting 22 as earlier described.

In the preferred embodiment, the form is rectangular, having top, bottom and opposed side edges 50, 52, 54 and 56 respectively. When the form is a continuous business form, the edges 50 and 52 will be defined by severed ones of the lines of weakening 16. Similarly, the edges 54 and 56 will be defined by severing along the lines 28.

In any event, just interiorly of each of the edges 50, 52, 54 and 56 is a corresponding cut 58, 60, 62 and 64 which together define a peripheral cut. It will be apparent from FIG. 2 that the cuts 58, 60, 62 and 64 do not extend to the marginal edges, but only extend to where



they intersect the adjacent one of the cuts 58, 60, 62, 64. The cuts 58, 60, 62 and 64 extend only through the web 36 and the coating 40 thereon as seen in FIGS. 3 and 4. As a consequence, a one-piece, closed frame 68, formed in the web 36, extends about the entire periphery of the form length 14. Thus, the frame 68 may be grasped and peeled from the remainder of the form leaving a rectangular pattern of the adhesive 34 exposed along the marginal edges 50, 52, 54 and 56. The peeling process has been initiated in FIG. 2 where the upper left hand corner 70 of the frame 68 has been peeled back. Note, however, that the main body of the web 36 including that part bearing the fixed information 22 and the areas 24 and 26 for receipt of variable information remains adhered to the label stock web 30.

In the usual case, the form will be manufactured as generally described and then processed to inscribe variable information in the areas 24 and 26. The frame 68 is then removed as a single piece to expose the adhesive 34 at each of the marginal edges 50, 52, 54, 56. The form may then be applied to a window by placing the surface 42 of the sheet or web 36 against the window and applying pressure to the web 30 oppositely of the exposed adhesive 34 and in the direction of the window.

Where the business form is utilized as a so-called "sticker" in new car sales, when the sale is completed and it is desired to remove the sticker thus applied to the window, it is only necessary to break the adhesion of the exposed adhesive 34 from the window. This can be initiated with a razor blade or the like at one of the corner of the web 30 until a sufficient part has been released from the window so as to be graspable when the adhesive pattern extends peripherally around the entire form. However, if the adhesive is applied only to two opposed edges, one need only slip ones hand between the window and the form applied thereto and gently peel the form from the window.

In order to save the remainder of the web 36 which contains both fixed information 22 and the variable information printed at the locations 24 and 26, it is only necessary to peel the remainder of the web 36 from the web 30. FIG. 5 illustrates the initiation of the peeling process wherein the upper left hand corner 74 of the remainder of the web 36 is being peeled back.

Upon the completion of peeling, one will be left with the sheet 36, less the frame 68 and the same will be free of any of the adhesive 34. It thus may serve as a convenient record. Because only peeling is required to separate the webs 30 and 36 from each other and the web 30 from a window to which the form may be mounted, there is no destruction, distortion or mutilation involved in the removal process. Consequently, an excellent record, free of residual adhesive, that may be filed for future reference is provided.

FIGS. 6 and 7 illustrate a particularly desirable feature of the invention. As seen in FIG. 6, two adjacent form lengths 14 remain in end-to-end abutment, being connected by a line of weakening 16 that is coextensive with the marginal edges 50 of the lowermost one of the forms and 52 of the uppermost form. A diagonal slit 76 extends through the second web 36 but not through the web 30 and between the line of weakening 16, that is, the marginal edges 50, 52 and the marginal edge 54. Because in the typical case, the line of weakening 16 will be a perforation, ties 78 will extend across the line of weakening 16 to connect adjacent parts of the web 36 including the triangular corner 80 that results from placing the slit 76 at the location previously described.

By making the ties 78 in the area of the triangular corner 80 relatively strong, when the form is burst along the lines of weakening into individual form lengths as illustrated in FIG. 7, the triangular corner 80, though formed out of the sheet 36 of the lowermost form length 14, will remain with the uppermost form length 14. Similarly, a small triangular patch of exposed adhesive 82 on the web 30 will remain on the lowermost form 14. As a consequence, on both there is defined a removal tab to facilitate grasping of the form and the removal of the frame 68.

Where the frame is continuous and in one piece, only one of the slits 76 need be provided. However, if the frame is discontinuous or if removable sections of the sheet 36 are provided only at selected marginal edges, it may be desirable to utilize a structure as illustrated in FIGS. 6 and 7 for each such section.

From the foregoing it will be appreciated that a business form made according to the invention is ideally suited for providing displays of variable information on transparent objects such as vehicular windows and then later serving as a record of the variable information that has been displayed. The form readily facilitates both the mounting of the display piece to the window as well as its removal without partial or entire destruction or mutilation or distortion of the display piece itself.

We claim:

1. A business form for use as a removable sticker wherein a variable information receiving section may be adhered to a transparent object and then easily removed therefrom without carrying residual adhesive, said business form comprising:

a first sheet of label stock having one side coated with pressure sensitive adhesive;

a second sheet of release liner material having a size and shape corresponding to said first sheet, a coated surface removably adhered to said adhesive, and an opposed surface remote from said adhesive for receiving variable information to be displayed through a transparent object;

cuts in said second sheet near at least two opposed edges thereof so that parts of said second sheet between said opposed edges and said cuts may be removed from adhesion to said first sheet to expose adhesive at said two opposed edges in flanking relation to said opposed surface and variable information thereon, whereby said form may be adhered to a transparent object by said exposed adhesive and, when removed therefrom, the remainder of said second sheet may be peeled from said first sheet free of residual adhesive;

said cuts being opposed parts of a peripheral cut in said second sheets, said peripheral cut in the edges of said second sheet defining a removable, one-piece continuous peripheral frame; and,

an exposed grasping tab on one of said sheets;

there being a plurality of said business forms in end-to-end abutment delineated from one another by lines of weakening to thereby define a continuous business form.

2. A continuous business form comprising:

a first elongated web of label stock having one side coated with a pressure sensitive adhesive;

a second elongated web of a width on the same order as said first web and made of release liner material having a coated surface removably adhered to said one side and an opposite surface adapted to receive variable information; and

cross lines of weakening in said webs defining individual form lengths;  
said individual form lengths having removable opposed marginal sections of said second web which may be removed to expose said adhesive in flanking relation to variable information on said opposite surface.

3. The continuous business form of claim 2 wherein the second web of each form length includes a slit extending from one marginal edge to an adjacent marginal edge across at least one said section to define a removal tab to facilitate removal of said one section.

4. The continuous business form of claim 2 wherein said marginal edges are defined by said lines of weakening.

5. The continuous business form of claim 2 wherein said marginal edges are the longitudinal edges of said webs.

6. The continuous business form of claim 2 wherein said marginal edges are both the lines of weakening and the longitudinal edges of said webs.

7. The continuous business form of claim 6 wherein said sections make up a removable one piece frame about the periphery of each said form length.  
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